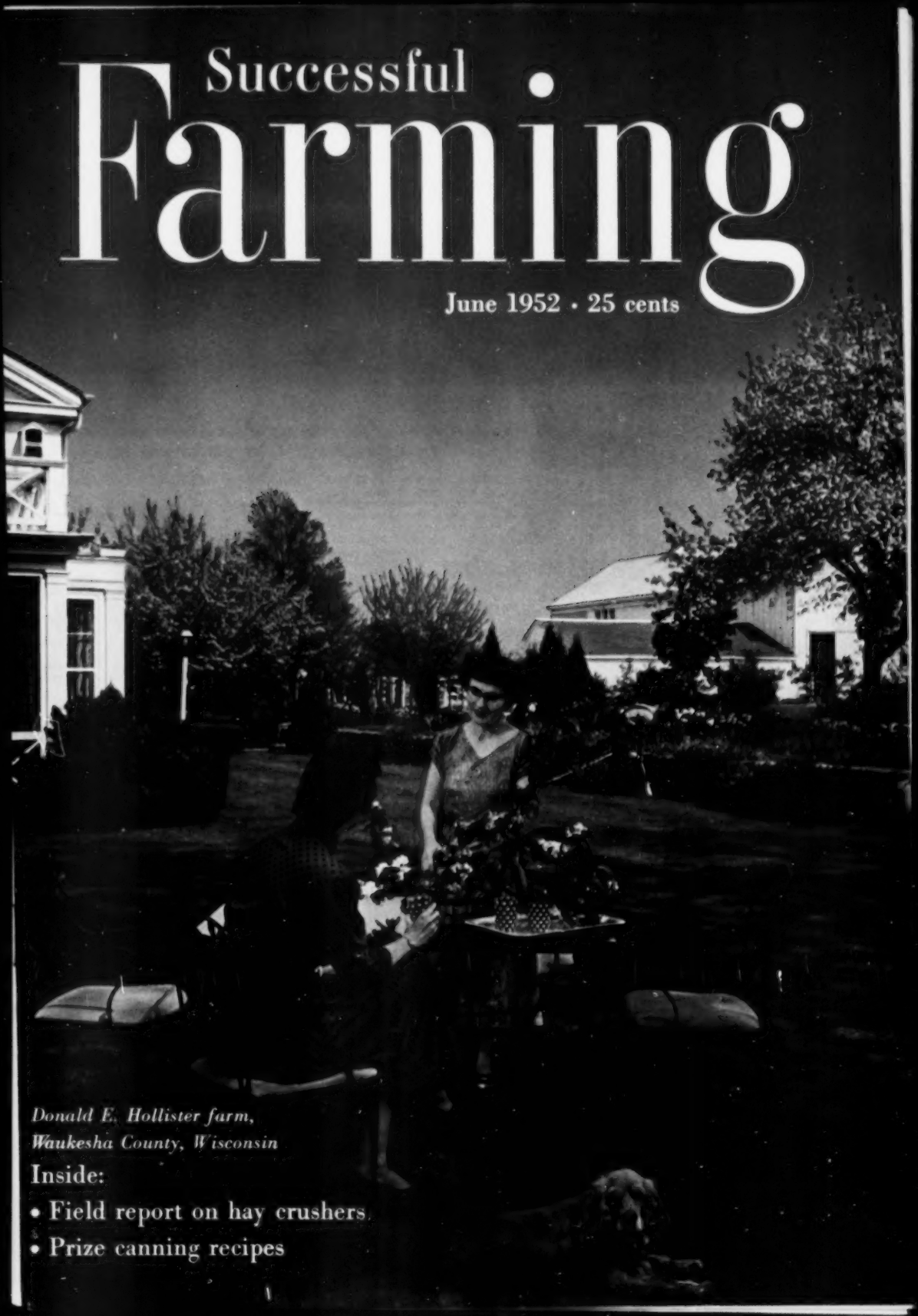
Successful Farming

June 1952 · 25 cents



Donald E. Hollister farm, Waukesha County, Wisconsin

Inside:

- Field report on hay crushers
- Prize canning recipes

MINNEAPOLIS-MOLINE MODERN MACHINERY

HARVESTORS HAVE THE REPUTATION FOR LOWEST COST HARVESTING PER BUSHEL, PER ACRE, PER DOLLAR INVESTED!

You get *all* your crop *when it's ready* . . . at lower cost than ever before with MM HARVESTORS. Dependable MM HARVESTORS assure superior performance in *all kinds of stands*—heavy crops, down grain, light crops—under *all field conditions*. Quality MM HARVESTORS are built to get all grain and seed crops with real money-saving economies of time, work, and fuel. They're built to take the year-after-year punishment of honest, hard work . . . to do a better job in every crop, *at lowest cost!*

CHECK THESE QUALITY FEATURES!

STRAIGHT-THROUGH CONSTRUCTION provides complete cutting, threshing, separating, and cleaning mechanism. SINGLE UNIT CONSTRUCTION balanced over the main axle for light draft and easy handling. EVEN FEEDING prevents piling up or slugging and gives best threshing results. Conveyor, two beaters, and metal curtain spread out unthreshed grain before delivery to cylinder. RASP-BAR CYLINDER and ONE-PIECE, WELDED STEEL CONCAVE and GRATE provide *gentle rubbing action*, similar to rubbing out grain between your hands . . . eliminate cracked grain and shredded straw. EXCLUSIVE GRAIN PAN DESIGN eliminates bunching of grain at sides or ends. CLEANING SHOE LEVEL may be regulated while on the go, regardless of the tilt of the HARVESTOR. UNI-MATIC POWER gives single-lever hydraulic control of cutting heights while on the go.

AN MM HARVESTOR FOR *YOUR* FARM

From the HARVESTOR 69 to the mighty Self-Propelled with a Powerflow drive—there's a dependable MM HARVESTOR equipped with header for "one-trip" operation or with a pick-up attachment for windrowed crops. In grain, beans, seeds, rice, flax—in every crop that must be harvested—you do a *better job easier* and at *lower cost* with MM HARVESTORS.

Ask your MM Dealer to give you all the facts about the famous 12 ft. pull type MM HARVESTOR, the HARVESTOR 69, the Self-Propelled HARVESTOR and famous MM WINDROWERS in various sizes.

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When it comes to tractor tires, farmers know best about what those tires will do—because farmers know from experience which tires give greater traction, clean better, last longer.

They are the tractor tire experts you can't fool with claims—the farmers who have tried *all* makes of tractor tires in years of firsthand working experience in the field.

They say Goodyear's Super-Sure-Grips pull where other tires won't. They say Goodyears last longer.

They say it in national surveys year after year—vote Goodyear's Super-Sure-Grips their *First Choice* tractor tires. *And there is no close second in this preference vote!*

Isn't this expert opinion your surest guide to the best tractor tires? Especially when Goodyears cost no more?

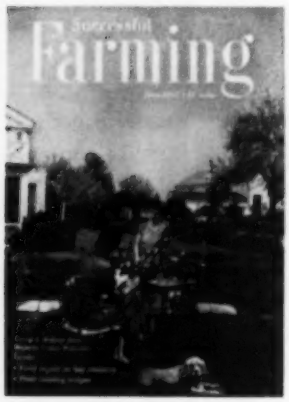
FIRST in Traction!—FIRST in Long Wear!—FIRST in Popularity!

GOODYEAR

Super-Sure-Grip Tractor Tires

Super-Sure-Grip—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

This month



Photograph: Photography, Inc.

Not in their most ambitious dreams did the editors hope to find spring so handsomely displayed in a single setting as you see it on this month's cover. But such is Wethersfield—a quiet little farm near the quiet little town of Mukwonago, Wisconsin.

Wethersfield is not just happenstance. Owner Donald E. Hollister's business was landscape designing before he took up farming. Now gardening is his hobby—a hobby that he admits is growing too big for him. For he likes to give the fertile 50 acres and his 20 cattle the same close and thorough attention his landscaping receives. Mr. Hollister is shown on our cover giving some devoted attention to his beloved plantings, while Mrs. Hollister arranges cut flowers (her hobby) and visits with editor Nancy Carpenter.

Handsome Wethersfield is not a display place, but visitors get a warm welcome, and in Donald Hollister's own eloquent words you learn why: "The garden was built by us and for us, and if in the eyes of others it appears successful, and if those who respond to its unspoken welcome can gain some measure of enjoyment while within its confines—then we are content. If credit is due, we claim but a portion of it, conscious of the fact that garden beauty is not created by human hands, but exists, in an infinite number of parts, for all. Those who have use for it may borrow, for greater or lesser time. We, having borrowed a modest portion, deem it pleasure and privilege to share it with those who too would love it."

It is the editors' belief that many of you will wish to know how Mr. Hollister developed Wethersfield into the beautiful farm it is. Not that you would want to duplicate the whole, but that you would want to borrow a portion, as he did, to make your own farm a lovelier dwelling place. It will be with this thought that *Successful Farming* will present the complete story and landscape plan of Wethersfield in a future issue.—*Margaret Speers.*

Successful Farming

The Dairy Farmer

THE MAGAZINE OF FARM BUSINESS AND FARM HOMES

June, 1952 Vol. 50, No. 6

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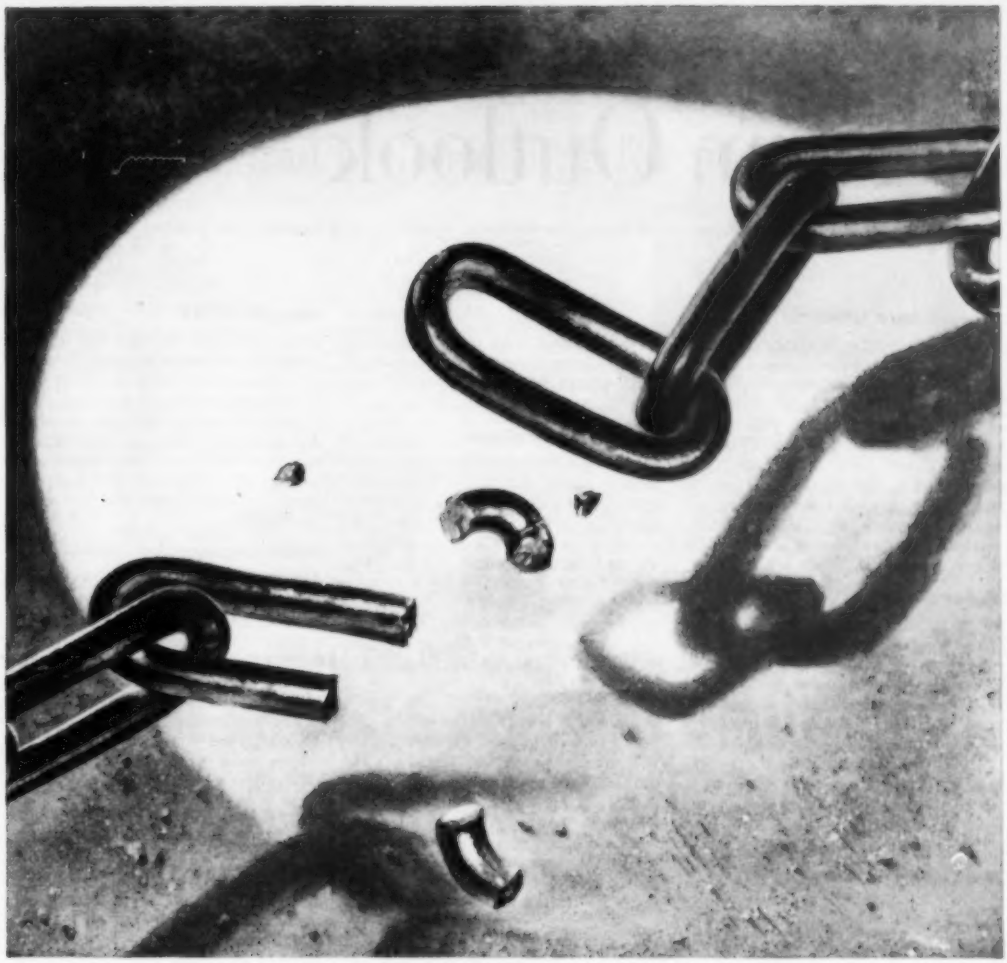

WEAKEST LINK...

You may have seen it happen right in your own neighborhood. A man works long and hard building his farm into a solid business operation representing a sizable investment.

Then he dies, and the whole thing breaks apart simply because he left one weak link in an otherwise strong chain—*not enough life insurance.* Suddenly his wife is faced with the problem of paying bills and taxes, running the farm and raising the children—all without a big enough cash reserve to do the job.

Whenever you make plans for the future of your family and your farm, always remember this:

Life insurance is one of the strongest links between present success and future security that has ever been devised.

That's why we suggest that you get in touch with your New York Life agent now—and make sure there are no weak "links" in any of your long-range plans.

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Farm Outlook

Latest information on conditions, production, markets, and income prospects

Strikes hurt economy

Strikes muddy the economic waters. End product is higher prices all around as steel wage hikes fan out to other industries. Sooner or later, these increases are passed on to you and to other consumers in the price of finished goods. Every item of defense costs more. You pay in increased taxes. All this at the very time when there appeared some prospect of stability in the economy, and it looked as though a dollar was going to buy a little more.

Farm output

While production of civilian goods has been lagging—waiting on consumer buying to increase—your farm output has been pushed to new highs. Meat output has been running larger this year than last, milk flow is up, eggs have been topping previous highs.

Farm production in first six months exceeded current consumption by a wide margin. The excess went into cold storage with a big layaway of meats and eggs.

Ham and eggs

U.S.D.A. held off as long as it could under congressional pressure to buy some ham and eggs for price support. Instead, officials talked up the Brannan Plan of direct payments. Prices of hogs and eggs went up the day after the department announced offers to buy smoked picnics, hams, bacon, and storage eggs for school lunches next semester. Storage men cheered, but government officials said prices were due to go up anyhow.

New crop year

This crop year begins with high promise—a near-record output of the food grains—and the good chance that feed grains will top last year's reduced volume.

Nearly 362 million acres are being used in production of principal crops this year. This is only 1 million less than in 1951, in spite of continuing reduction in the supply of farm labor. Higher yields this year could more than offset the small reduction in acreage.

Wheat supply

This year's wheat crop looks like the largest in 10 years, making possible high-level exports and some addition to reserves. Market prices will be lower this summer than last. Commodity Credit Corporation will take over some 1951 wheat. Much of the 1952 crop will go under seal.

Switch to sorghums

Many Southwest wheat farmers are looking to the time when wheat acreage will have to be cut back because of smaller exports. Some farmers are planning to put the land to milo and feed out their own cattle. There is also a good export demand for sorghums (cheaper than wheat) for food. The commercial winter-wheat belt may look very different a few years from now.

Feed grains

With only *average* acre yields, this year's output of feed grains may top 121 million tons against last year's 114 million. Feed reserves are down, but so is the number of grain-consuming livestock because of fewer hogs and work stock. There will be less pressure the remainder of this year on the supply of feed grains and other concentrates for livestock producers.

No reseal

Pay up, or deliver the collateral, says C.C.C. There will be no reseal grain loans this year.

Stated reasons are that the supply of grain has been reduced. The quantity under price support is down. There is less pressure on storage and transportation, and C.C.C. has plenty of space for any grains that may be acquired under price support. Reason not stated is that C.C.C. fears spoilage of overage and poor-quality grain—particularly corn—in farm-loan storage.

Hog production

Farmers this year are producing about two-thirds of a hog for each person in this country—themselves included. Consumers want the pork, but they don't want so much lard along with it. Regardless of some price differential, they prefer vegetable-oil shortening to lard.

Production got up to nearly one whole hog for each person during World War II. This overtaxed the slaughtering machinery and prices declined. Even at this year's lower rate of production, a great deal of pork was put into cold storage.

Egg prices up

Prices you get for eggs should show some improvement now, as the season of surplus production is nearly over. June is the last month for putting eggs into cold storage. Biggest months of out-movement last year were September and November. After this season's poor price experience, it's likely that flocks on most farms will be smaller next winter.

Milk support

U.S.D.A. doesn't expect to have to buy any dairy products for price support this year. Basis is a production volume only slightly larger than in 1951. Consumer demand for fluid milk, ice cream, and cheese is expected to stay high. Dairy products are one of the few groups of farm products for which prices have been averaging higher than in 1951. The outlook for dairying is good.

More and more oilseed

B.A.E. thinks that another record, or near-record, output of edible vegetable oils is in prospect for 1952-53. Estimates are based in part on big acreages of soybeans and cotton. For months there has been more vegetable oil than the markets would take at anywhere near last year's prices.

Switch from oats

Cornbelt oats acreage probably is down, and corn acreage up, from March intentions. Switch will make for more feed per acre.

October carryover from last year's corn crop also may be larger than had been expected. This is a result of increased marketing of cattle, reduction in spring pigs, and smaller poultry flocks going into the last half of 1952.

Farm expenses rising

During the first quarter of 1952 the cost of goods and services used in farm production was up 4 percent over the same quarter a year ago. For 1952 this will in all probability mean around 5 percent higher costs than 1951. During this same period prices received for livestock and products were down 10 percent. Contributing to the rise in costs are costs of feed, up 9 percent; seed, up 12 percent; machinery and cars, 6 to 8 percent; and wage rates, 11 percent. Other items are about unchanged to a little higher. END

More eggs from his hens... and a Goose Egg for maintenance!

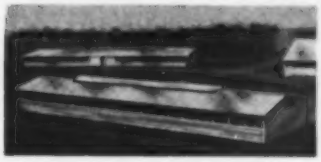
This Georgia story can mean More Profits from your Four-Legged Livestock, too!

Bryan Leibel, Georgia egg rancher, has three 40′ x 80′ laying houses and two 30′ x 100′ houses—all roofed with Reynolds *Lifetime* Aluminum 5-V Crimp. Mr. Leibel says:

"Heat in the Southeast, as in so many parts of the country during the summer months, is most detrimental to the well-being of poultry. Therefore we choose aluminum to help the chicken keep cooler, feed better *and lay more eggs*. Thanks again for aluminum!"

"Cooler," as Mr. Leibel says, actually means *up to 15°* cooler, by actual field tests of aluminum-roofed structures. That difference can save poultry flocks in "killing" heat waves, besides increasing egg production and broiler weight.

But most important, that heat-reduction can increase your profits whether you are housing poultry or pigs or milk cows or beef cattle. Because every warm-blooded animal produces less—or stops production entirely—in excessive heat.



Besides that money-making advantage, rustproof aluminum saves you money by practically eliminating maintenance... needs no painting. And it saves on winter fuel in heated buildings, because its heat reflection works either way.

Make your farm buildings *better tools*, with aluminum. Make 'em *work*, make 'em *pay!*

Plan ahead for PROFIT BUILDING... with Rustproof, Heat-Reflective

REYNOLDS *Lifetime* ALUMINUM ROOFING and SIDING

for 1001 Farm Uses!
REYNOLDS *Lifetime* ALUMINUM FLAT-SHEET FLASHING

Ten 18" x 48" sheets of .019" aluminum in handy carton. For flashing, wagon flooring, vermin barrier, door kicks, etc., etc.

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REYNOLDS ALUMINUM REFLECTIVE INSULATION

High insulation efficiency without bulk. Perfect vapor barrier. Aluminum foil on one or both sides of kraft paper. Quickly put up.

Military needs for aluminum limit the supply of Reynolds *Lifetime* Aluminum Roofing and Siding, but we are rapidly expanding primary metal production. Right now, as you start this year's plans, put in a word with your dealer. Keep checking him as you work out the details of your building... it's your best chance of getting this superior material when you are ready to start construction. Ask him for Reynolds *Lifetime* Aluminum Gutters, too. And keep asking... *patience will pay off in profits*. Mail the coupon. Write for literature.

Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.

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(1) Barn, $5.

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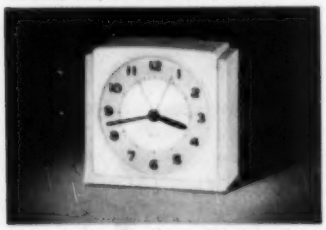
They come from such a good family they're Westclox!

GREENWICH Electric Alarm. A truly handsome clock, with a rich, mahogany-finish wood case and pleasant-tone bell alarm. $7.95. With luminous dial, one dollar more.



BANTAM Electric Alarm. This beautifully-designed little fellow is only 3½ inches high. His clear-toned bell alarm has a cheerful call. $4.25. Available with luminous dial at $5.00.

Prices do not include tax and are subject to change

WESTCLOX

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Made by the makers of Big Ben

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Friend to Friend

Working money

Money makes the mare go, we used to say. Now it's equally certain money makes the tractor go—money on the barrelhead, too. Without cash or credit, the Cornbelt's vast numbers of tractors would stand idle. Repairs, fuel, and oil can't be found in the hayloft or oats bin.

And so with operating costs almost equal to fixed farm investment, the credit situation is one with which to reckon in farming. Spring needs are heaviest when the average farmer's liquid assets are probably the lowest. To understand clearly what the crop season can bring in production, bank credit and store credit, as well as the farmer's own resources, must be figured. Commercial farming always needs huge amounts of working capital. Too few men starting to farm fully realize this need. Before they learn, they have tied up in capital investments the money they need for working capital.

Swine type

Spring barrow shows are bringing farmer and packer together on the kind of a hog needed under present conditions. We need more such shows. We need most, however, a realistic method of rewarding the fellow who takes the pains to produce the right kind of hog.

For more science

The American farmer, the best in the world today, is the child of science. His machines, chemicals, livestock, and crops are wholly different from those his grandfather used. It is easy to credit our farmers' brilliant record to the use of vast amounts of power. But where did we get the power? The chance invention of an internal combustion engine did not automatically bring with it the farm tractor. Fuel, lubricants, steel, pneumatic tires all came first—and they came from the laboratory.

The horizons of science in agriculture lie far ahead. Our crude methods today can only hint at the means eventually to be employed in producing food and fiber for human consumption. I am concerned that you fully understand your part in that great scientific future. As a good citizen, you have a responsibility to see that the right men get into legislative offices. And, once elected, they must be supported. You must have a great interest in your experiment station.

The science that made the tractor what it is today was to a large degree pure science. The man in the laboratory didn't start out by saying, "I am going to develop a tractor tire." That came later by applied science. Big problems facing farmers today must be worked out by pure science first. Did the man who studied snowflakes 25 years have in mind control of rainfall? No, indeed! Yet he or others may eventually apply his studies to at least some control of rainfall.

Farmers' great need is for more scientists—pure scientists who have the freedom to seek new fundamental information anywhere. Once it is found, the application to pigs or cabbages will be reasonably certain.

Your living standard

How much do you expect in good living from your farm? I doubt if very many have thought of farming in that way. If times were good, we got a new rug or made a trip we had long considered. Or maybe we increased our pledge to the church a bit. And when the tide turned the other way, we sometimes wished we had the money back.

For folks who like to live well—which need not be *high* living—the loss of ground in this direction is painful. I am sure these people will use every possible honorable means of producing the income needed under tougher economic conditions. Their love of both creature comforts and the cultural side of life will result in their trying harder to produce efficiently. While certainly not wanting to give anyone the idea I encourage high living, I do want to promote the desire for higher and higher farm living standards as well as high production standards.

Come and see us

Our welcome mat is always out here at *Successful Farming*. But through the next four months as we are celebrating our fiftieth year in publishing, we want to issue a special "come and see us" to our readers. The entire staff joins me in hoping that you and your family will stop in and visit us when you are in Des Moines.

Special guides will be on hand to show you around. They will take you behind the scenes to see the interesting steps *Successful Farming* goes through before it reaches your mailbox. We hope that a good many of you will stop and share our fiftieth anniversary with us.

Kirk Fox

Drive it Yourself— the Great New '52 Pontiac

Easy on the Eye, the Road—*and Your Budget!*

The chances are you have already admired not one, but many new Pontiacs. There is something very distinctive and satisfying about its Silver Streak beauty—something that sets it apart from anything else on the road.

But until you actually drive a new Pontiac yourself you can't know what a great all-around automobile this Dual-Range* performer really is. The new Pontiac gives you exactly the power you want, when you want it, where you want it—automatically!

In Traffic Range you have all the spirited get-away and pep you'll ever need—and in Cruising Range you can sail along all day, smooth as silk, and know you're saving gas every mile. For in Pontiac's Cruising Range you automatically *reduce engine revolutions as much as 30 per cent!*

Remember, too, Pontiac is a low-priced car—the lowest priced straight-eight in America; the lowest priced car offering Hydra-Matic Drive.

See your Pontiac dealer—drive this great car. It's mighty satisfying, on the eye, on the road and on your budget!

**Optional at extra cost. Equipment, accessories and trim illustrated are subject to change without notice. White sidewall tires at extra cost.*

Dollar for Dollar You Can't Beat This Dual-Range Combination!

More Powerful High-Compression Engine
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New High-Performance Economy Axle

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What's new in farming

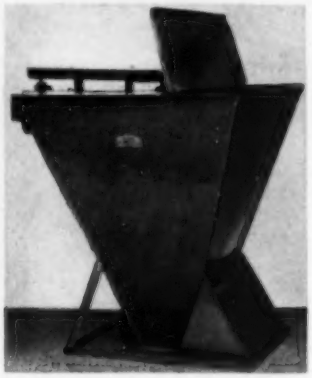
Tips you can use today

Bulk milk cooler. This bulk milk cooling tank for farm use is available in 200-, 300-, or 400-gallon sizes. Each tank is equipped with interchangeable covers,

stainless-steel liner, built-in cold section at the bottom, agitator, measuring stick, and thermometer. The legs of the tank are adjustable and the tank bottom is pitched to provide complete drainage.—*Emil Steinhorst & Sons, Inc., Utica 3, New York.*

Fire alarm. This alarm sounds the minute a fire breaks out. All that is needed for installation is a screwdriver to screw the panel near an electric outlet. The specially sensitized wire which sets off the alarm can be used in one room or in many.—*Heat Timer Corporation, 520 Broadway, New York 12, New York.*

Batch feed mixer. The mixer is designed for farmers who feed concentrates or supplements mixed with their own home-grown grain. Simplified construc-



tion makes possible satisfactory operation with a ½-hp motor. The mixer is light in weight and can be moved easily by one person. A perfect mix is said to be produced in about 3 minutes.—*Farmworthy Manufacturing Company, W. C. U. Bldg., Quincy, Illinois.*

New raspberry. A new red raspberry variety, named Early Red, has been developed at Michigan State College. Early Red is early maturing, tall, vigorous, hardy, and very productive. Berries mature early and are light red when first ripe, turning dark when fully ripe.

Self-propelled harvester-thresher. This combine has 36 forward-speed adjustments for complete harvest control. Nine different speeds in each of the four transmission gears range from ¾ to 12½ mph. Operator can quickly match travel speed with crop conditions without shifting gears or throttling the engine. The separator speed stays constant and the engine speed and power remain full at all times.—*International Harvester Company, Chicago, Illinois.*

The Super C backed in and pulled the disk right out.

You can prove McCormick® Farmall® pull-power to yourself

The disk harrow was weighted down until a 2-plow tractor pulling it lost traction and the wheels began to spin. Then the Farmall Super C backed into the identical wheel tracks and pulled the disk out!

That is the difference between Farmall pull-power and a tractor that is short on traction. It means having correct power-weight balance built into your tractor.

Farmall pull-power means you have both ample power and positive traction, so that *rear-mounted equipment* can follow natural draft lines.

Farmall pull-power means you have both power and traction for *front-mounted equipment* – like a middlebuster, planter, cultivator.

Farmall pull-power means you have both power and traction combined into a balanced unit to pull *trail-behind equipment* through soft spots – where other tractors bog down.

But more, Farmall pull-power means you get more useful work from every gallon of gas—the tractor wheels carry you forward, instead of wasting fuel in excessive slippage.

Also, Farmall pull-power cuts your manpower costs – the operator can maintain most efficient operating speed in either loose or hard ground.

Your International Harvester dealer wants you to Prove to Yourself that Farmall Pull-Power pays. See him today. Arrange, without obligation, for a Farmall demonstration on your farm. Drive a Farmall Super C yourself – you'll understand why Farmalls are the most popular tractors built.

INTERNATIONAL HARVESTER

International Harvester products pay for themselves in use – McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Crawler Tractors and Power Units . . . Refrigerators and Freezers – General Office, Chicago 1, Illinois

B.F.Goodrich

tires give Garling Farms long-run economy

GARLING FARMS lies in the heart of the Rio Grande Valley near Harlingen, Texas. Its 2,200 acres of rich soil produce cotton as well as many kinds of vegetables.

Forrest Garling has farmed this land for over twenty years. Today his operations call for four foremen and an average of forty farm hands throughout the year—plus more than a thousand extra workers during the cotton-picking season. Fifteen tractors work the fields, while ten trucks, three passenger cars and two Jeeps handle other farm chores.

Much of the farm's acreage is devoted to cabbage, a vegetable requiring a great amount of irrigation. This makes the soil muddy and heavy, so tire traction is one of Mr. Garling's chief problems. That's why he prefers B. F. Goodrich Power-Curve tractor tires—the tires that tests prove outpull other leading makes.

Power-Curve tires give you this full shoulder-to-shoulder traction because each cleat is pointed with an arrowhead nose that bites into the soil. No spinning wheels to waste time and fuel—every turn of a Power-Curve tire counts. Dirt drops out of open channels between the evenly spaced cleats. Power-Curve tires stay clean—another aid to maximum traction. And Power-Curve tires wear longer because the cleats are actually higher in the center than those of the other two leading makes. Add up these facts and you will understand why Mr. Garling likes the long-run economy Power-Curve tires give.

To prepare cotton land for planting, Garling Farms uses tractors equipped completely with BFG tires—from "Easy Steer" and Multi-Ring front tires to Power-Curve rear tires.

Their Tubeless Tires have rolled 21,000 miles without a flat. Forrest Garling, pictured with his daughter, Sherry Ann, expects another 25,000 miles from them.

More recaps from BFG truck tires

Garling Farms carries its preference for BFG tires to its cars and trucks. Mr. Garling recaps B. F. Goodrich truck tires regularly—feels they are good for as many as four recaps. All BFG truck tires of 8 or more plies are built with the exclusive nylon shock shield. Extra-strong nylon cords absorb shock and protect the tire body. Tires wear longer. You get more recaps and more miles per recap.

Successful farmers such as Forrest Garling benefit from the extra savings of B. F. Goodrich tires. That's why all their equipment—implements, tractors, trucks and cars—roll on BFG tires. No matter where you farm or the size of your operation, you also can benefit from BFG tires. See your local B. F. Goodrich retailer—you'll find him listed under Tires in the Yellow Pages of your telephone directory—or write: *The B. F. Goodrich Company, Akron, Ohio.*

Heavily irrigated cabbage fields call for the extra power BFG tires give.

B. F. Goodrich "Life-Saver" Tubeless Tire defies skids!

The new "Life-Saver" Tubeless Tire not only seals punctures and protects against blowouts—*it defies skids, too!* The tire has a new kind of tread engineered with thousands of tiny, flexible "grip-blocks". In wet weather, these "grip-blocks" grip for quick stops because they wipe the road so dry you can light a match on it. Starting up, they grip like a caterpillar tread to get you going fast. No wonder in rain this "Life-Saver" tire stops in as much as 20% less distance, pulls as much as 40% better than regular tires.

And the "Life-Saver" outwears other passenger tires, too, because the tiny tread blocks have a "walking action" that reduces scuffing. The new BFG "Life-Saver" Tubeless Tire may save your life, can save you trouble, *will* save you money!

New "Life-Saver" Tubeless Tire tread wipes a wet road so dry you can light a match on it!

RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

Watch animals for

anthrax

Recent outbreaks of anthrax in parts of the Midwest have added another disease to the stockman's worry list. Anthrax is not a new disease by any means. Certain areas of the United States suffer from this disease fairly regularly. But the outbreaks in the Midwest are unusual because the infection has not been a problem in these areas before.

Animals become infected through food, water, openings in the skin, insect bites, and even by breathing infected air. Scavengers, like crows, can carry the disease from one area to another.

Anthrax attacks nearly all warm-blooded animals, including man. Although the outbreaks so far have been mostly in swine, it could spread to cattle, horses, and sheep which are also susceptible. The recent outbreak is believed to be caused by feed containing bonemeal brought in from outside the country.

Anthrax occurs in four forms: peracute, acute, subacute, and chronic. The peracute form strikes without warning. There are no outward symptoms. A healthy animal will suddenly stagger and die. Examination will show bloody discharges from the nose, mouth, and rectum.

Death occurs in one or two days when animals are infected with the acute form of anthrax. In the acute form, animals first become excited and then depressed. Usually, the animal will lag behind the herd, refuse to eat, and stand with head held low. Small hemorrhages may appear inside the mouth. The animal's tongue may be discolored and swollen.

Chronic anthrax usually is confined to swine. The disease can be discovered by post-mortem examination of certain glands. When swine contract the disease by feeding on infected carcasses, they may die without any outward symptoms. Some swine have swellings about the throat that may cause death by strangulation. A large percentage may have swellings about the throat, then recover.

The subacute form is very similar to the acute except that the animals usually live for three to five days before they die, or they may recover completely.

If you suspect anthrax in your animals, call a veterinarian or a livestock sanitary official immediately. If the presence of anthrax is proved, there are several measures for its control.

To begin with, infected animals should be disposed of quickly, either by complete burning or deep burial. These measures apply also to the manure, bedding, blood-stained soil, and other material contaminated by the animals.

If one animal dies from anthrax, have the rest of the herd examined for early symptoms of the disease. Isolate any sick animals and treat them immediately with antianthrax serum.

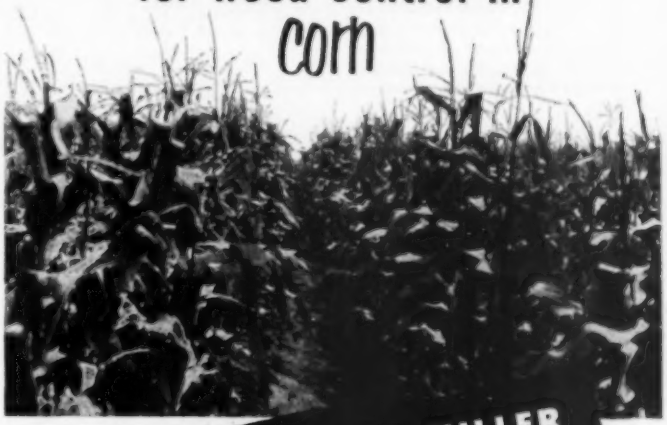
Apparently healthy animals should be vaccinated as soon as possible. State livestock sanitary officials or an experienced veterinarian should be called to inspect the animals and do the vaccinating.

If possible, when anthrax occurs, you

[*Turn to page 59*

first choice!

for weed control in corn



2-4 DOW WEED KILLER

Formula 40

High corn yields tell a success story for weed control with Formula 40! Over the past four seasons, growers have watched their corn grow with new vigor and yield extra bushels per acre—the result of spraying young corn with this farm-tested and farmer-approved Dow weed killer.

Formula 40 is the best 2,4-D AMINE weed killer you can buy for low-volume spraying. It has been used successfully on thousands of acres of corn and small grains. Equally effective in hard or soft water—it won't clog spray equipment. Ask your state experiment station or your Dow dealer for advice regarding the recommended dosage for local strains of corn and best stage of growth for spraying.

Where an ESTER formulation is preferred—Esteron® 44, when used properly, fills the bill! It is especially useful for spraying stubble fields for *post-harvest* weed control.

Ask your dealer for

DOW WEED KILLERS

Use Dependable Dow Agricultural Chemical Products

- Weed, Brush and Grass Killers
- Insecticides
- Fungicides
- Plant Growth Regulators
- Grain and Soil Fumigants

THE DOW CHEMICAL COMPANY
Agricultural Chemical Department
MIDLAND, MICHIGAN

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CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE

fits your home like a glove

CURTIS WOODWORK

Here's woodwork that fits perfectly into modern living—woodwork delightfully at home in any style of house. It's Curtis Woodwork, of course—fresh in its appealing charm, sturdy in its honest craftsmanship.

An excellent choice for a one-story house, this Curtis doorway will add an extra touch of beauty and individuality to your home. It is design C-1709—one of several Curtis styles.

Notice the smart, modern simplicity of this Curtis mantel. It may be painted, stained, or finished "natural." The wood opening size is variable. Your Curtis dealer will show you numerous other styles.

This graceful Curtis cabinet will serve many uses in breakfast, alcove, dining or living room, nursery, game or book room. It may be painted or stained. Curtis design C-6501.

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Please send the *Curtis Woodwork Idea Book* for building and remodeling. I enclose 10 cents. (Please print.)

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How to stack cut-grass silage

By R. S. Severg

Don't let the lack of a silo prevent you from making some cut-grass silage this year. It can be stacked right out on top of the ground. You'll get some spoilage, but your losses probably won't be any greater than if the hay is rained on several times. And you'll end up with some high-quality feed regardless of the weather.

Due to wet weather in June and an increasing supply of roughage, more and more farmers are making grass silage out of their first cutting. However, on many farms this has meant a problem of finding silage storage space. Upright stacks have been the answer in many cases.

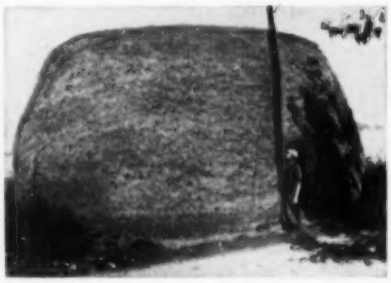
In Lorain County, Ohio, a group of farmers are big pushers of stacked grass silage. County Agent Carl Deeds estimates that last summer at least 25 stacks were made in the county. Harvey Born was one of the first to try the above-ground method of storing silage. In 1950, he built his first grass-silage stack. Last year he put up two silage stacks.

Born first selects a level, well-drained site. Then he stakes off the perimeter of the stack so it can be built straight and true. Any deviation from the line is likely to cause a sag in the stack edge and result in spoilage.

A sturdy 30-foot pole is set 5 feet in the ground, midway along one side of the stack site. This is to support the silage blower pipe. Born builds the stack with one end to the west so that the stack will give some protection from winter weather. Silage is fed off the east end.

[*Turn to page 16*

Rectangular stack built by Harvey Born was 20 feet high before settling. It held 350 tons. Rounded top sheds rain. Stack is placed on level, well-drained spot, facing east-west



Round stack on Born farm contained 250 tons of silage. Stack is 22 feet in diameter. Pole supports blower pipe when filling. Edges should be well tramped to build straight sides

Photographs: Groves

Wire fencing and weatherized paper didn't cut down spoilage for Galinsky brothers. Future stacks will be built without fencing. Stack is built close to loafing barn for easy feeding

On a tractor or on a telephone pole—

It takes experience

You're putting up hay that's cured right and won't mold in the bale. That takes experience.

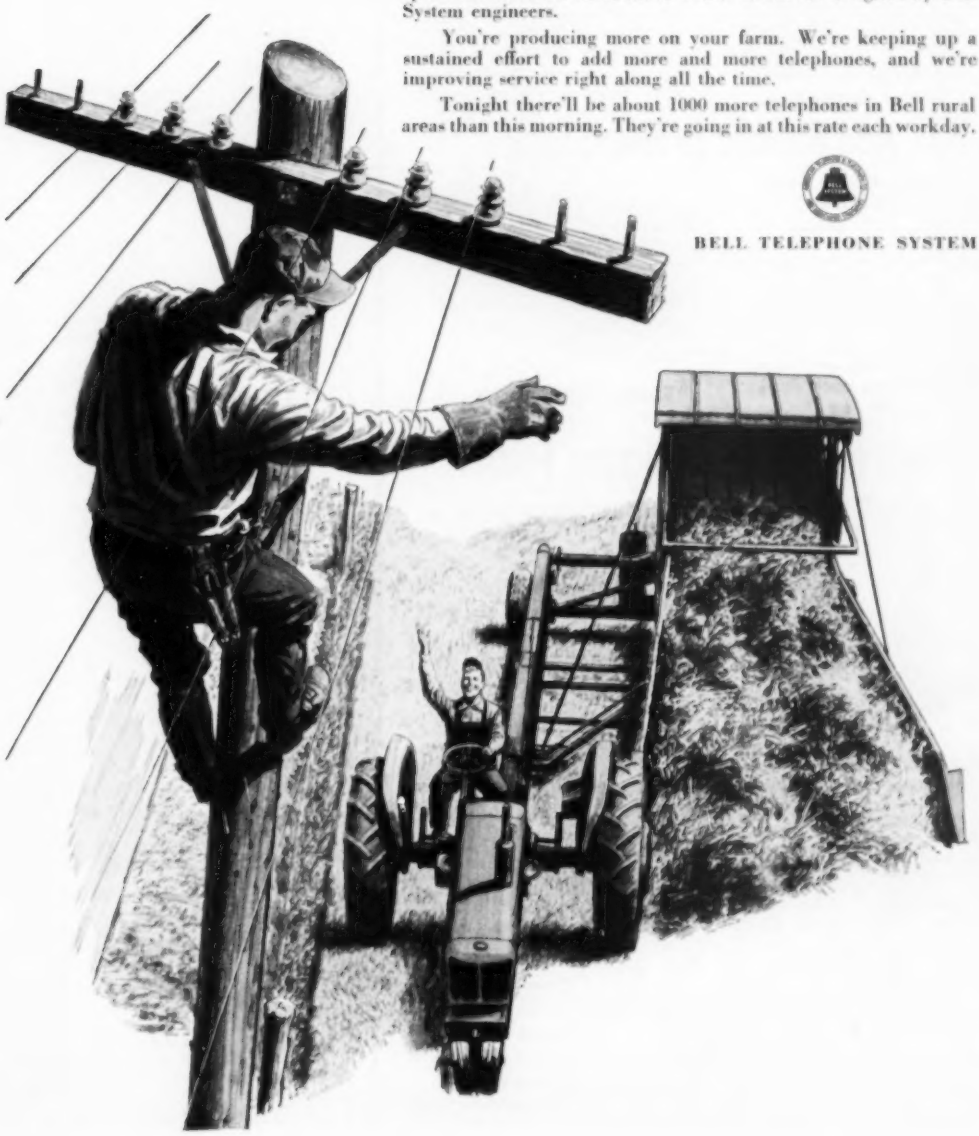
We're putting in telephone lines and equipment that'll last and give good service, day after day. That takes experience, too.

You're using more and more machinery, to get work done faster and better. We're using more mobile power machinery to speed the work on rural lines. Much of ours is designed by Bell System engineers.

You're producing more on your farm. We're keeping up a sustained effort to add more and more telephones, and we're improving service right along all the time.

Tonight there'll be about 1000 more telephones in Bell rural areas than this morning. They're going in at this rate each workday.

BELL TELEPHONE SYSTEM



Increase Your Profits with Small Investment

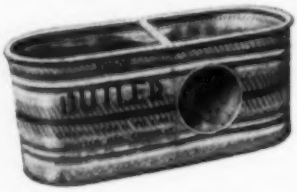
Bank Your Grain

Butler Grain Bins

When you bank your grain in a weather tight, rodent-proof Butler Grain Bin, you're bound to increase your profits. Year after year, more and more farmers find it pays to hold their grain beyond harvest time to sell later at a higher market price. *And remember, more farmers are using Butler Grain Bins than any other make.*

Add Pounds to Your Stock

Your stock will gain weight faster and be healthier when you give them plenty of fresh, clean water from a Butler Stock Tank. Don't run the risk of illness and vet bills. Increase your livestock profits with Butler Stock Tanks. "Big Ham" Automatic Fountain lets small and large stock drink from same tank.



Butler Stock Tank

Your Hogs Grow Bigger, Faster

Increase your hog profits in a hurry this easy way—feed your porkers from a "Big Ham" Hog Feeder. Sixteen openings in circle let even largest hogs get their fill, leisurely. Deep troughs, well covered, stop feed wastage; cut feed bills. "Big Ham" means big hog profits to you—buy one *soon*.

Butler "Big Ham" Hog Feeder

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Please send me complete information on the following products in the Butler Blue Ribbon Line of Farm Equipment.

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P.O._____
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- ☐ Grain Bins
- ☐ Stock Tanks
- ☐ Hog Feeders
- ☐ Farm Fuel Tanks
- ☐ Corn Cribs
- ☐ Well Casing
- ☐ Feed Pans
- ☐ Auger Grain Loaders

Cut-grass silage

[*From page 14*]

The first stack built in 1951 had a 20x40-foot base. Born says this was too big, for it took too much work to build. The 18x30-foot stack built in 1950 worked better. In building a stack, one man handles the distributor pipe. Two other men work on the stack with ensilage forks, leveling the silage and tramping the edges to build solid, perpendicular walls. Straight walls assure even weight over the stack, holding down spoilage.

This rectangular stack was built 20 feet high at the edges and mounded across the top to shed rain. It was built carefully to avoid any pits or depressions where rain could collect and cause trouble. The stack contained over 50 acres of meadow—almost 350 tons of grass silage.

The grass was cut in June and put into the stack almost immediately. No conditioner was used. Born built a second stack on another farm. This one was round, 22 feet in diameter, and much easier to build. About 35 acres of meadow—250 tons—went into this one. He sets the chopper for a short cut.

Spoilage over the exposed top and at the base of the stack has averaged less than 10 percent. Charles F. Rogers, silage expert at the Ohio Agricultural Experiment Station, says the strong silage found at the base of a stack can be avoided by building a base of coarse rock covered with fine sand or pulverized limestone.

Harvey Born's two brothers, Arthur and Howard, have neighboring farms, and the three men work together in making silage. Each put up stacks last year, 200 tons apiece.

Wet weather in the spring of 1951 kept Corwyn Burrer, also of Lorain County, Ohio, from getting 17 acres of meadow harvested in time for hay. Finally, he decided to save it by making a stack of silage. By this time it was too dry and he had to run water on it as it went through the blower. A ¼-inch cut was used. The stack was built 18x32 feet and settled down to a height of about 11 feet. He didn't get the top mounded properly and water got into the stack. This made some of the silage rather black. However, the cows relished it anyway.

When the Galinsky brothers, Ed and Leon, saw Born's first stack, they decided to build one which would have no spoilage on the sides. They had 130 acres of alfalfa-Ladino-timothy-bromegrass they wanted to make into grass silage. Using welded wire, they started a round stack 30 feet in diameter. A lining of weatherized paper was placed inside the wire fencing. Two men kept the silage tramped as filling progressed. The stack was built 6 tiers high and settled down to 15 feet. From 5 to 6 inches of ground limestone was spread on top.

Ed Galinsky says the wire and paper were just a waste of money and caused extra spoilage. However, he thinks the stack system is fine and plans to use one again. It will be placed next to his loafing barn so he can shoot the silage right into feed bunks.

Stacked silage is only one of the ways of handling grass silage. You can expect 8 to 12 inches of spoilage on the sides and a foot or so on top. But even at that, it's hard to beat as an emergency method of making grass silage. **END**

STANDARD

FARM NEWS-GRAPHIC

THEY LIKE FRIENDLY SERVICE!

Skippy inspects a basket of prize soy beans grown by Chester Biddle of Remington, Indiana. About 14 years ago Mr. Biddle changed to RED CROWN Gasoline because he was having trouble with his tractor engine. He has had no trouble since and says that using RED CROWN reduces his maintenance costs and gives him the greatest power yield per gallon. He likes the service he gets from his Standard Oil Agent, who comes after dark, on Sundays and holidays if needed.

Ton and a half of beef! John Althaus of Sublette, Illinois, is shown above with his Hereford steer, "Jumbo," which weighs a monumental 3,000 pounds and then some! With "Jumbo" and other big jobs to handle, Mr. Althaus has found that smooth-running, dependable Standard Oil products have helped to make his job easier. He's been a 100% user of Standard products for 22 years. As he says, "Every fill of gasoline I buy is of the same uniform quality." That's one of the reasons he has had trouble-free operation of his mechanized equipment.

News and Notes FOR JUNE

What reasons do farmers give for doing business with a particular oil company? When we asked our customers, here's what most of them said: (1) quality products (2) dependable delivery (3) friendly service. If you're not getting all this . . . and more . . . it's time you changed to Standard. Call your Standard Oil Man today!

• • •

The 1,111 counties in the Midwest where Standard Oil products are sold are served by over 6,000 Standard Oil Agents and drivers . . . an average of nearly six agents to every county. No wonder that dependable delivery is one of the reasons why our customers do business with us. This ratio of 6 to 1 means just this: You get the supplies you need when you need them, even in emergencies.

• • •

Fuel oil in your tank is like money in the bank! Fill your tank now with STANDARD Heater Oil or STANOLEX Furnace Oil and be sure of heat when you need it. You'll be ready to go when chilly Fall days come. By keeping your tank full, you'll eliminate worry about condensation and contamination of your fuel oil. Ask your Standard Oil Man for a "summer fill" next time he stops by!

• • •

Haying time is one time when you don't want anything to interrupt the smooth, reliable running of your tractor. To insure trouble-free operation, more farmers depend on PERMALUBE *Heavy Duty Motor Oil than on any other! Order* PERMALUBE *today!*

Your Standard Oil Man

PICK *your* JOB

GOT A HARD ROW TO HOE? MAKE IT EASY!

Simplicity 6-Shovel Cultivator is adaptable to different crops and soil conditions . . . works astride or between rows. Features depth screw regulator . . . individual shovel adjustment for depth and pitch.

CUT THE WORK OUT OF WEEDS AND TALL GRASS!

Simplicity 30-Inch Sickle Bar cuts 4 to 5 acres a day . . . offers separate speed settings for maximum efficiency in tall grass, tough weeds. Clears swath at both ends so succeeding cuts can be made in either direction.

DO IT WITH Simplicity REG. U. S. PAT. OFF.

There's no end to the usefulness of a Simplicity Tractor and implements. Every week of the year, Simplicity makes light work of hard chores around your place. Economical, easy to operate — Simplicity cuts BIG jobs down to boy-size . . . provides substantial savings in time, work and money.

Write for FREE illustrated folder and for the name of the Simplicity dealer nearest you or see your classified telephone book.

The Right Tractor for Every Job

3 H. P. MODEL M-1
—5 speeds forward. Drop forged, heat treated, fully enclosed gears . . . patented **Quick-Hitch** for less-than-a-minute implement changes without tools . . . true line of draft on rear-hitch implements.

2 H. P. MODEL L-1
— Same features as the M-1, designed for lighter work.

SIMPLICITY MANUFACTURING CO.
5225 Spring St., Port Washington, Wis.

AMERICA'S No. 1 GARDEN TRACTOR

June is month to top-dress

By C. J. Chapman
University of Wisconsin

This is the year of all years to top-dress. Let's keep our old alfalfa fields in a high state of production. You know as well as I that your cows won't keep on filling 12-quart milk pails twice a day unless you keep feeding them. And so it is with those old alfalfa fields; they won't go right on producing big crops of hay unless you supply the necessary plant food.

The first question you will ask is this: "When should this job of top-dressing be done?" My answer is: "The sooner the better." You'll probably want to wait now until you get the first cutting off, although it could have been done early this spring.

And what about the kind of fertilizer to use? Well, for years we have been recommending high-potash mixtures. Remember, alfalfa is a tremendous feeder on potash. You should plan to top-dress with at least 300 pounds of an 0-10-30. Actually a 4-ton crop of alfalfa will pump out of a field the amount of potash contained in 570 pounds of 0-10-30, but part of that is replenished from the soil. Top-dressing will not only give these fields a square meal of plant food when they are hungry, but it will increase the vigor of the stand. You can apply this top-dressing of 0-10-30 or 0-9-27B (with boron) as soon as the first cutting is off.

Also, it's a good practice to top-dress new seedings of alfalfa or clover in August or September.

We suggest applying the fertilizer as soon as possible after the grain is harvested. Even where applied on dry soil in the summer, there will be considerable penetration of the fertilizer, as the surface soil is porous and full of cracks. The first rain will carry much of the fertilizer down into the soil. You can apply this fertilizer any time up to freezing this fall, or it can be applied as a top-dressing with stable manure during the winter months. But the sooner you get the fertilizer on, the greater the benefit to your alfalfa or clover seedings, because it tends to stimulate a more vigorous growth this fall. END

SUCCESSFUL FARMING

"Happy birthday, Freddie!"

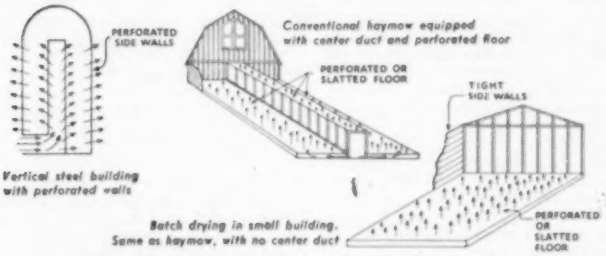
How to save all the hay you raise

In storm or sunshine — in *any* kind of weather — crop dryers and steel buildings make it possible for you to save all your hay crop.

Using modern hay drying and storage methods you can cut hay at the right stage of maturity. It can be taken from the field before it is dry. Field losses are greatly reduced because the valuable leaves are saved. And the hay is preserved in its most palatable form.

Whether you sell hay or feed it to your livestock, proper curing and storage will maintain its full value — increase your profits. The danger of spontaneous combustion and fire is eliminated. Attractive steel storage units also protect your valuable crop against lightning, storm and rodents.

To reduce your operating costs and give you longer life in crop dryers and steel storage buildings, leading manufacturers use Armco Special-Purpose Steels. Armco Stainless Steel and Armco ALUMINIZED Steel are used in heated crop dryers to step up efficiency and resist the high temperatures. Armco ZINCGRIP in storage buildings provides protection against rust and gives you long, low-cost service.



ARMCO STEEL CORPORATION
292 Curtis Street, Middletown, Ohio

Please send me
- ☐ further information on modern hay drying methods
- ☐ names of portable crop dryer manufacturers
- ☐ names of steel building manufacturers

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Address _____

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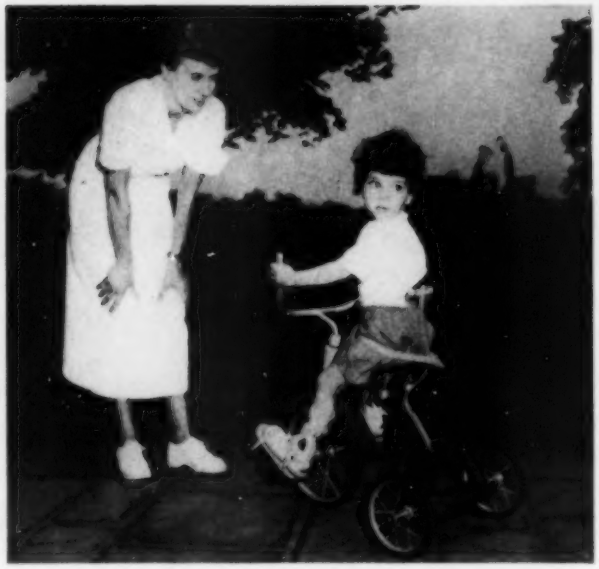
MIDDLETOWN, OHIO, WITH PLANTS AND SALES OFFICES FROM COAST TO COAST
THE ARMCO INTERNATIONAL CORPORATION, WORLD-WIDE

MORE STEEL SCRAP IS NEEDED for top steel production. The new furnaces the steel industry is building cannot be operated at capacity with the present scrap supply. To help the nation — and yourself — sell your steel scrap now.



Through National Foundation for Infantile Paralysis, the best care is within reach of all polio victims. If they can't afford to pay, the treatment is free

The facts about polio

Twenty questions and answers about the great crippler

The past four years have been the blackest polio years on record. Sweeping epidemics of the dread disease struck American homes the country over, bringing hardship and tragedy to the families of some 132,000 victims. Polio struck adults, turning them into invalids, sometimes for life. But hardest hit were those least equipped to understand—the nation's children. Teen-agers, grade-school children, the toddlers, and even infants who hadn't yet learned to walk. They bore the brunt of the attack.

Fortunately, now, the disease no longer carries the terrifying element of surprise. Almost 3,000 chapters of the National Foundation for Infantile Paralysis now blanket the nation, ready with capable help. Because of this foundation, which operates solely with money from the March of Dimes, more Americans now know the facts about polio, how best to protect themselves and their families from it, what to do if it strikes.

Following are the foundation's answers to questions most frequently asked about polio:

1. What is polio?

Polio is short for poliomyelitis, a disease of the central nervous system caused by a tiny virus. A virus is a parasitic organism that cannot live or reproduce without invading a living cell, injuring or destroying that cell.

2. How does the virus enter the body?

It probably enters through the mouth and nose, then travels to the motor nerve cells where it does its damage.

3. What are the symptoms of polio?

Headache, sore throat, upset stomach, sore muscles, dizziness, stiff neck and back, fever, and infrequently, difficulty in swallowing or breathing. At the start, polio may resemble many other illnesses.

4. When does it strike?

Some cases are reported every month, but there are more cases beginning in late May and June, rising to a peak usually in late August or early September.

5. How many types are there?

Three types: spinal, bulbar, spinobulbar. Spinal cases involve the nerve cells controlling movements of the body below the neck. Bulbar affects the nerve centers in the bulb of the brain controlling breathing, swallowing, and circulation. Spinobulbar is a combination of both and is the most serious.

6. Do many people die from polio?

Relatively few; about 8 percent of all reported cases. And 50 percent of all reported cases recover completely. Another 25 percent recover with slight aftereffects. About 17 percent are seriously

[*Turn to page 30*

Actual color photograph of half a strawberry left uncovered for five days in an Admiral Dual-Temp. Moist-cold kept it fresh, appetizing, flavorful.

The other half of the same berry was left uncovered five days in an ordinary refrigerator. Note how it has dried out, leaving only seeds and tasteless pulp.

New 2-door Dual-Temp! Model 1292—12.2 cubic feet. Dual-Temps are also available in 11.4 cubic foot size with single door.

Foods don't dry out in an Admiral Dual-Temp

Imagine a refrigerator that is one big "crisper" all the way from the freezer to the floor! That's what you have in the Admiral Dual-Temp! That's why *foods don't dry out* . . . why meats, egg yolks, fruits, vegetables, desserts . . . all stay fresh and flavorful for days on end—without lids or wrappings, without any mingling of odors or flavors.

Remarkable, too, is the freezer itself. It gives you the *coldest-cold* of any refrigerator; quick-freezes at temperatures as low as 52° below freezing, stores up to 72 pounds of frozen foods. For the one truly different *No Defrosting* refrigerator—for the finest in refrigeration at typical Admiral savings—see the new '52 Dual-Temps now at your Admiral dealer's.

Admiral refrigerators begin as low as $199.95

Guaranteed by Good Housekeeping

ADMIRAL ELECTRIC RANGES—the only ranges that give you the accuracy of Flex-O-Heat controls, plus the automatic self-turning Rotary Roaster.

Free: *Subscription to "Smart Living". See your Admiral dealer.*

TV and Radio: See and hear both presidential nominating conventions on ABC TV and Radio Networks.

Radio: "World News with Bob Trout" Sundays, 5:30 PM, EDST over CBS.

Admiral

DUAL-TEMP

NO DEFROSTING... EVER!

TELEVISION • APPLIANCES

Fresh eggs or dried eggs? In a cake like this? Fresh eggs, of course.* That's why Betty Crocker says, "You add the eggs to my cake mixes. You know the eggs are fresh."

Unlike most cake mixes, there are

NO DRIED EGG WHITES, NO DRIED EGG YOLKS, NO DRIED EGGS OF ANY KIND IN

Betty Crocker

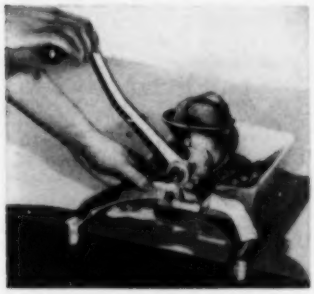
CAKE MIXES

*HERE'S PROOF *that you should use Betty Crocker Cake Mixes to which you must add fresh eggs. Hundreds of homemakers in Philadelphia, Cincinnati and St. Paul recently compared three leading cake mix brands, including Betty Crocker Cake Mixes. Plain packages were used so the women did not know the brands they were comparing, and the research was conducted by an independent marketing research organization. On the average, the preferences for the cakes made from the Betty Crocker Cake Mixes, calling for fresh eggs, were more than two to one over the cakes made from the "dried egg" cake mixes tested.*

General Mills

What's new in homemaking

A food chopper with no clamps has at last been designed for use on any table top. Rubber pads protect the table surface and prevent slipping. The chopper comes apart for easy cleaning. A trough beneath the barrel catches excess juices, pours them into a container. The extra-long handle makes turning easier and

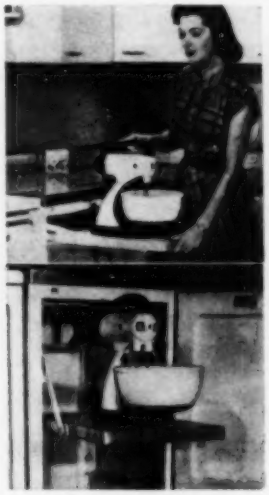


faster. The Tab-L-Top chopper is heavily tinned cast iron and has three precision-made cast-iron cutters. Price: $5.95. Buy it at department and hardware stores, or order direct from the manufacturer, postpaid.—*Landers, Frary, & Clark, New Britain, Connecticut.*

Gas range with a new twist is this one with its "wheel-about" cart built in! The cart has two roomy shelves, a handy drawer, and a removable chopping-board top that can be used anywhere. Use it to haul things all over the kitchen, and to add counter space where you need it. When not in use for errands, the cart

slides easily into place to become part of the range and to provide hidden storage space. The range is available in models for any kind of gas, has a large, 17-inch oven and a smooth-rolling broiler with chrome grid and pan. Sold by appliance and furniture stores and by LP-gas dealers. Costs about $279.75, delivered and installed.—*Cribben & Sexton Company, 700 N. Sacramento Blvd., Chicago 12, Illinois.*

Cabinet lift hides away your mixer or whisks it up to counter height when you are ready to use it. Two coil springs counterbalance the weight of the mixer; rigid locking rod holds lift securely in working position. Directions show you how to in-



stall it easily in your own steel or wood cabinet. Door opening must be 18" minimum, top to bottom; minimum depth must be 22" front to back *inside* the cabinet. Lift comes in two widths: 14" for door openings 15" or wider; 17½" for door openings 18½" or wider. (Special sizes to order, $2.50 extra.) Lift alone is $12.50. You can make your own platform out of plywood or solid stock and finish it to match your kitchen—or order it in sanded hardwood at $8.50, or in white pine, $5.50. All prices include shipping charges. Order from *McMahan Brothers, 2220 S. Hoover St., Los Angeles 7, California.*

Nylon yardage is available at low cost for lovely blouses, slips, and draperies. Comes in white only but takes dyes readily. After laundering, it dries fast and needs no ironing. Order, at $1 a yard (postpaid), from *American Agency, 799 Broadway, New York 3, New York.*

Home Canners . . . for Premium Protection, get the Lid with the Difference!

Switch to BALL DOME LIDS

You pay no more . . . you can't buy better!

You home-can to save money and flavor — to eat better for less. Make sure of those savings. Get the canning lids with the **difference.** That difference is the DOME, originated by BALL to end "guesswork sealing." Here's why Ball Dome Lids give you premium protection on every jar:

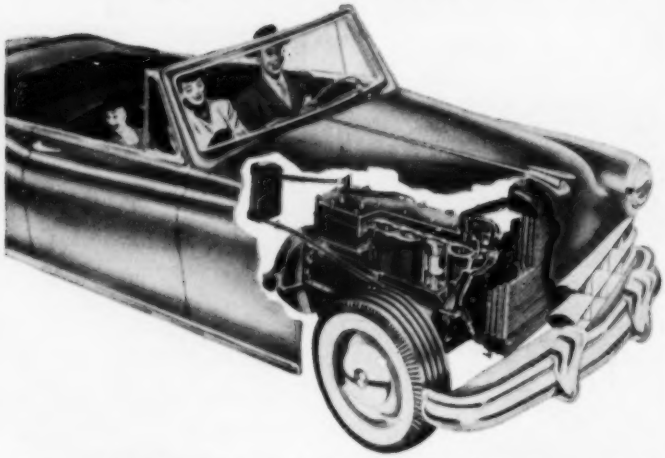
Famous Touch-Test* SEAL

Just press to test. When Dome is down, jar is sealed. So easy! So sure! Dome Lids have a cream-white enamel lining over special gold lacquer — yet cost no more than old-fashioned "flat tops." Save all you can. Get Ball Dome Lids!

FREE BOOKLET! Send postcard for "Ball Canning and Freezing Recipes" — includes latest methods, timetables. Ball Bros. Co., Dept. SUF1 Muncie, Indiana.

Remember only Ball JARS come with BALL DOME LIDS

Before it's too late . . .
DRAIN OUT and CLEAN OUT your radiator



Protect your car, truck and tractor from summer overheating. Clean out rust and scale with

DU PONT Cooling System CLEANSER

Hot weather makes cooling systems work twice as hard . . . makes engine overheating more likely. But you can guard against this annoying problem *right now*, when you drain out anti-freeze—by removing rust with **Du Pont Cleanser.** Du Pont Cleanser makes the job safe, thorough, and simple. Use it in your car as well as in your tractors and trucks. There's no fuss, *no reverse flushing necessary!* Ask for a can at your service station today, and find out about Du Pont's "Drain Out" service too.

After cleaning, prevent rust all summer long with

NEW DU PONT ANTI-RUST and Water Pump Lubricant

When your cooling system has been thoroughly cleaned of rust, it's a cinch to keep new rust from forming with **Du Pont Anti-Rust.** This new liquid rust inhibitor developed by Du Pont not only retards corrosion, but neutralizes acids, lubricates the water pump and helps eliminate squeaks. Du Pont Anti-Rust won't clog or cause sludge, and it's harmless to hose and metal parts.

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING

. . . THROUGH CHEMISTRY

WHAT WAS NEW IN FARMING

50 Years Ago

Some things have changed a lot, others not so much over the past 50 years. This point is well illustrated below by the advertisements which appeared in *Successful Farming* in 1902. One change is certainly conspicuous—the purchasing power of the dollar. Incidentally, we've received several letters from readers who are interested in merchandise offered in these old advertisements. Needless to say, it isn't available today.

Then, as now, men and boys liked to send for free catalogs on hunting and trapping

Here was smart attire for the working man—"Drab Corduroy Suits." Low prices, too

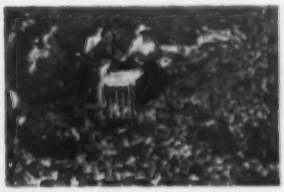
Hatchery chicks now, but in 1902 the old kerosene-lamp incubator was in its prime

"HERE'S WHAT OPERATING A 10,640 ACRE FRUIT FARM HAS TAUGHT US ABOUT SPARK PLUGS"

Mr. J. A. Di Giorgio (L) Vice President, Di Giorgio Farms and Mr. J. C. Lyttle, Superintendent, inspect grapes from their famous vineyards. This great fruit farm and winery is located 20 miles from Bakersfield, California, and employs as high as 2000 workers at picking time.

Specially designed spraying equipment is used to combat insects and fungi in the Di Giorgio plum orchards.

Grape vineyards on a vast scale require constant cultivation to produce the superior type Malaga grape for which Di Giorgio Farms is famous.



Wine grapes are picked by the field workers and loaded into trailer units for transporting to the winery.

A load of wine grapes is weighed enroute to the Di Giorgio winery (background) which has a capacity of 10,000,000 gal.

Choice Malaga grapes are sorted and packed for shipment usually across the continent to New York markets.

"Here at Di Giorgio Farms we grow plums and various other fruits, as well as select vegetables, and ship them under our own brand names. However, our largest crop is grapes which we grow for the premium market and for conversion into wine and brandy. Our winery, located right at the Farms, has a capacity of 10,000,000 gallons.

"Throughout the cycle of planting, pruning, cultivating and harvesting we operate over 400 units of motorized equipment. It's extremely important that we keep these vehicles and machines in prime condition for immediate and intensive use. When, for instance, we're harvesting and processing 700 to 800 tons of grapes in a day it would be disastrous to incur any delay in the movement of these perishable products.

"Long ago we learned that spark plugs have an essential role to perform in keeping our many trucks, tractors, spray rigs and dusters running at top performance. That is why we use Champion Spark Plugs *exclusively* at all our California Ranches. We've found that Championa have always given us the most dependable service."

J. C. Lyttle
Superintendent Di Giorgio Farms

Dependable

CHAMPION

Spark Plugs

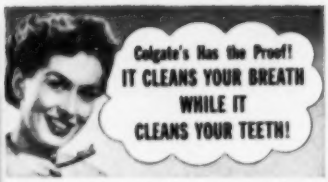
CHAMPION SPARK PLUG COMPANY, TOLEDO 1, OHIO

Only COLGATE DENTAL CREAM

HAS PROVED SO COMPLETELY IT

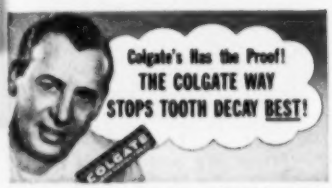
STOPS BAD BREATH*!

***SCIENTIFIC TESTS PROVE THAT IN 7 OUT OF 10 CASES, COLGATE'S INSTANTLY STOPS BAD BREATH THAT ORIGINATES IN THE MOUTH!**



For "all day" protection, brush your teeth right after eating with Colgate Dental Cream. Some toothpastes and powders claim to sweeten breath. But only Colgate's has such complete *proof* it stops bad breath.*

Colgate's wonderful wake-up flavor is the favorite of men, women and children from coast to coast. Nationwide tests of leading toothpastes *prove* that Colgate's is preferred for flavor over all other brands tested!



Yes, science has proved that brushing teeth right after eating with Colgate Dental Cream stops tooth decay *best!* The Colgate way is the most thoroughly proved and accepted home method of oral hygiene known today!

No Other Toothpaste or Powder OF ANY KIND WHATSOEVER Offers Such Conclusive Proof!

Get PURE, WHITE, SAFE COLGATE'S Today!

The farmer's Washington

By Richard Wilson

- **Congress shows new interest in protective tariffs**
- **General MacArthur expresses some farm views**
- **How much influence does Brannan have on Congress?**

Protection? State Department officials say they are worrying because the sentiment for tariff protection is rising in Congress. They claim this sentiment lay dormant while the advocates of reciprocal trade treaties held the stage. But now the free-trade advocates are less active, and the interests of State Department officials have turned to foreign-aid programs.

This has left a vacuum which the "protectionists" are now filling by activities in Congress to win more favorable tariff treatment for individual commodities, according to State Department officials.

They point out as examples the Andresen Amendment on dairy products, pressure by Congress for strict observance of the "Buy American" act, and increased pressure by private firms for higher import duties.

Secretary of State Dean Acheson has decided to try to stem the drift back to "protectionism." He is doing this in messages to Congress and by directing his legislative representatives to watch the activities of congressmen more carefully. Also he is pushing projects intended to bring foreign aid and recovery, such as a contract with an Italian firm for the manufacture of microscopes. It's the same old story. The Italian firm pays its workers 30 to 35 cents an hour. The American bidder for the contract has to pay $1.40 to $2.50 per hour.

Not 5 billion. Agriculture Secretary Brannan has taken exception to a statement in the March Farmer's Washington on grain losses involved in the recent U.S.D.A. irregularities. "I certainly hope," he writes, "that you meant to say 'million' instead of 'billion,' and that a typographical error is responsible for the larger figure. Incidentally, the losses can't possibly run as high as the lower figure, either." It certainly was a typographical error on "billion," but time will tell what the total losses will be.

In spite of the secretary's protests that grain diversion has been a small thing, 14 more grain-shortage cases have been referred to the Department of Justice after a house committee complained that U.S.D.A. was reluctant to do so. The director of the Minneapolis Regional Commodity Office has written a letter, which came to light recently in a congressional inquiry, saying in part: "There are so many cases of conversion of mortgaged collateral in our area that we feel it is not only impractical but actually damaging to the farm programs to bring criminal action in every case of known conversions."

Brannan is fighting back on the Republican charge that U.S.D.A. has its spots of corruption along with other government agencies. He now claims the losses may not exceed $1,000,000—which is a nice piece of boodle in itself. But, argues Brannan, this is only 1/100 of 1 percent of the value of commodities C.C.C. has handled.

Nevertheless, the P.M.A. commodity offices have been ordered to tighten up on all their warehouse arrangements.

Farmer MacArthur. A Midwestern reporter recently rode to Mississippi in General Douglas MacArthur's chartered plane on the occasion of a speech the general was making to the Mississippi legislature. More for conversation than anything else, the reporter asked MacArthur if he had any views on the farm problem. The general did. He said he had never grown a thing in his life, but that his study of history convinced him the "solutions of the problems of any country must start with the solutions of the people who work the soil."

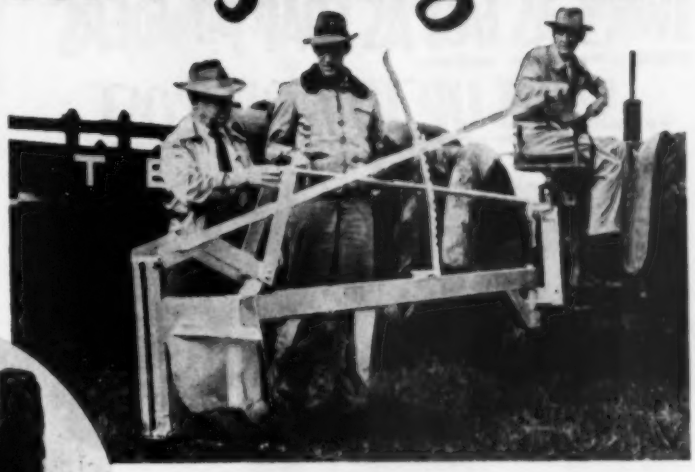
Furthermore, according to MacArthur, Rome fell because the rulers didn't understand that a healthy farm economy was needed to maintain the glory of the city.

"Caesar was successful in his conquests only when he stimulated agricultural development," MacArthur said. He pointed out that he was brought in close contact with the problems of land reform in Japan and the Philippines. Land reforms in the Philippines, he said, were started by his father, General Arthur MacArthur. And, in Japan Douglas MacArthur came face to face with that country's land problem. One of the smartest moves the State Department made, he said, was to send him a former Stanford University professor, Lieutenant Colonel Hubert Schenck, to supervise the land-reform plan initiated by the United States.

"I got the impression," the reporter said after his talk with the general, "that General MacArthur would be willing to try his hand at solving farm problems in the United States, and not as secretary of agriculture, either." However, General MacArthur was making no pretense of a detailed knowledge of the problems of American agriculture.

Success. Agriculture Secretary Brannan has more success in Congress than would outwardly appear. Under his pressure, Congress has quietly shelved the Hoover plan to replace P.M.A. committees with state and county advisory agricultural councils. And, in addition, congressional committees approved virtually all the funds asked for the agricultural conservation program. END

Invents Self-Adjusting Plow



● Mr. Warren Phenice (center) explains operation of self-adjusting plow that he and his brother Henry (right) invented and developed at Riceland Farms, Welsh, La. Texaco Man R. J. Davis (left) is an interested listener. The plow is set for desired depth by hand lever held by Henry. The telescoping bar (under Warren's hand) enables tractor to travel over uneven ground without disturbing plow setting. Thus, bottom of ditch is cut on a level plane.

Rear view of self-adjusting ditching plow in action with Warren Phenice on tractor. This novel implement simplifies the problem of digging drainage ditches.

Digs Level Drainage Ditches Despite Roughness of Terrain

Draining ricelands for planting called for tedious hand labor with shovels until Warren and Henry Phenice invented and built the novel self-adjusting ditch plow shown above. The Phenices own and operate Riceland Farms near Welsh, La. The plow cuts a level furrow bed despite uneven ground surface, terraces, etc., making complete water run-off possible. This implement could save hours of time and back-breaking labor for any farmer having a drainage problem. With it the Phenices find they can dig drainage ditches, covering about 50 acres in an hour's time.

The Phenices have also discovered that *it pays to farm with Texaco Products.*

Master Kevin Phenice watches his father Warren put some Havoline Motor Oil in his tractor. Havoline exceeds Heavy Duty requirements, so practically eliminates engine wear in Diesels and heavy trucks, tractors and automobiles. Havoline keeps engines cleaner, better lubricated, and releases more power from every drop of fuel.

"Service Station" on wheels: Mr. L. F. Nelson (right), who farms 1,500 acres near Davenport, Washington, lubricates his equipment in the field from a portable compressor in his pickup truck. He uses Marfak because Marfak sticks to bearings longer, seals out grit and dirt — resists wash-off, drip-off, dry-out or cake-up.

Neighborly Service: That's the kind farmers want and get from Texaco Men. Albert Bahrns (right) of Keller Oil Co., has a pleasant chat with Paul Stortzum (left), prominent farmer near Louisville, Ill., after delivering a tankful of Fire-Chief, the gasoline with superior *"Fire-Power"* for low-cost operation.

TEXACO
THE TEXAS COMPANY

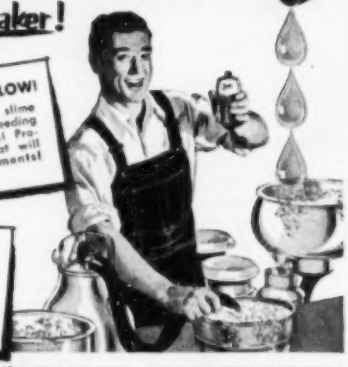
IT PAYS TO FARM WITH *TEXACO PRODUCTS*

DIVISION OFFICES: Atlanta 1, Ga.; Boston 17, Mass.; Buffalo 3, N. Y.; Butte, Mont.; Chicago 4, Ill.; Dallas 2, Tex.; Denver 1, Colo.; Houston 1, Tex.; Indianapolis 1, Ind.; Los Angeles 15, Calif.; Minneapolis 3, Minn.; New Orleans 6, La.; New York 17, N. Y.; Norfolk 1, Va.; Seattle 11, Wash.

Texaco Petroleum Products are Manufactured and Distributed in Canada by McColl-Frontenac Oil Company Limited.

CLEANS DAIRY EQUIPMENT TWICE AS FAST AS SOAP POWDERS ... SAVES UP TO ½ THE COST in hardest water!

JOY Procter & Gamble's Miracle Concentrated Liquid Sudsmaker!



KEEPS BACTERIA COUNT LOW!
JOY washes away all milk slime and grease—discourages breeding places for harmful bacteria! Promotes a bacteria count that will pass any State's requirements!

PREVENTS PROFIT-STEALING MILKSTONE!
No soap flakes, granules, or powders in the world can match JOY's ability to keep milkstone from forming. And remember—just this milkstone can rob you of 1/3 of the valuable butterfat you deserve!

Already *dissolved*—gives *instant* suds! . . . No caking as with packaged soaps! . . . No mess when you splash, no more soggy soap cartons to fall apart! No spilled powders to clean up afterwards! . . . No waste from guesswork, because every drop is measured accurately!

Yes, here's the newest way to clean cream separators, milking machines, cans, pails, and strainers *cleaner, faster, more economically* than soap powders in hardest water!

CLEAN DAIRY EQUIPMENT THE JOY WAY!

Cleaning Milking Machines—After each milking, flush unit with 1 pail of hot Joy solution. Use 2 capfuls of Joy to a pail of water.

When all Joy solution is drawn into milk pail, remove rubber seal from pail head and wash seal and pail head in suds with a soft bottle brush. Then brush outside of unit with Joy suds. Shake solution around inside milk pail to complete washing; then empty pail.

Reassemble unit and flush-rinse with very hot water. Then hang milk pail, pail head, and teat cups up to dry. Just before next milking, flush out milker with clear, hot water.

Cleaning Cans, Pails, Strainers—wash in hot Joy solution with soft brush. Use 1-2 capfuls of Joy to a pail of water.

Rinse with very hot water, allow to drain dry. Everything will be spotlessly clean.

Remember, too! JOY MAKES YOUR DISHES GO FROM GREASE TO SHINE IN HALF THE TIME!

All around the house

Here are tips to help you save some time, space, steps, work

● I find spiced whipped cream is delicious on apple pie, apple betty, and many other desserts. To make it, I add a dash of cinnamon, nutmeg, and cloves in addition to the sugar and vanilla to flavor the cream.—*Miss B. R., Nebraska.*

● When making little girls' summer cottons, I add a few inches to the length of the belt sashes. Then, should a dress get torn or wear out in spots, I have the same matching material with which to mend it. Should the dress fade, so will the sash, and vice versa, both having stood the same laundering, and so the match is always perfect.—*Mrs. E. C., Iowa.*

● I save bottles with applicators or brushes attached to the lid. After cleaning the bottle, I fill it with water and use it when moistening stamps, envelopes, or paper tape.—*Mrs. C. G., Oklahoma.*

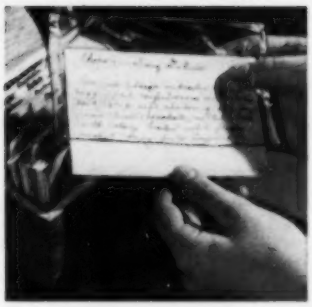
● When looking through my new magazines, I keep a pencil handy. If there is a new recipe, or a decorating idea I think I would like to try, I write the page number of the article on the front cover. When the rest of the family has read the magazine, I clip out the desired pages. It is easy to find the items by checking the cover.—*Mrs. W. B., Pennsylvania.*

● To prevent my mixing bowls or pastry board from slipping while I use them, I put a dampened pot holder or dishcloth under them. It's very effective—and simple! Incidentally, the same trick acts to deaden the clatter which often goes with vigorous beating in a glass or metal bowl.—*Mrs. E. B., Nebraska.*

● I put adhesive tape over the head of my hammer when hammering upholstery tacks. The tape prevents scratching or discoloring the finish on the tacks. It makes for a neat, professional job.—*Mrs. K. M., Wisconsin.*

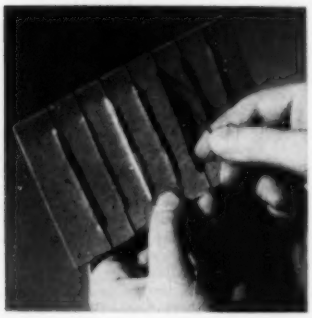
● I have found that vinegar will remove the unsightly water stains which accumulate in my flower containers. I simply rub it on with a cloth. For more difficult stains, I pack the container with a vinegar-soaked cloth. Let this stand for several hours, keeping it moist all the while. The stain will come off easily.—*Mrs. J. T., Iowa.*

● To keep pajama drawstrings from slipping into the garment when being laundered, I sew a large button on the end of each string.—*Mrs. E. C., North Dakota.*



● My recipe box contains a cellophane envelope a bit larger than my recipe cards. As I select a card from the file, I slip it into the envelope, leave it there while the recipe is being used. I find this helpful as my recipe cards stay clean and the envelope can be wiped off and used over and over.—*Mrs. J. H., Wisconsin.*

● **A shaker-type spice can makes a good container to be used when sowing small seeds such as cabbage and celery, or flower seeds. I also use a large spice can for insect powder for my garden. It is handy to use. —*D. S., Pennsylvania.***



● To keep my leftover embroidery floss from getting into a tangled mess, I use a piece of cardboard about 3x5 inches. I cut slits about ½ inch deep and ½ inch apart along the side of the cardboard and wind the floss through the slits.—*Mrs. S. D., Iowa.*

● **Ashes and odors don't cling to my ash trays since I began giving them a coat of wax. They are easily wiped clean with a disposable tissue.—*Mrs. L. S., Minnesota.***

● To make lemon ice cubes, I dilute lemon juice with water and freeze in ice-cube trays. The cubes chill and flavor iced tea at the same time.—*Mrs. B. G., Vermont.*

● **My favorite place cards for my children's birthday parties are cookies decorated with the name of each child attending the party. The cooky is used to mark each child's place at the table and then eaten as a part of the refreshments. I use a powdered-sugar frosting and a waxed-paper tube for the writing.—*Mrs. D. S., Indiana.***

Successful Farming will pay $5 for each helpful suggestion published. We cannot return unused suggestions.—Editors

One section of SATINA added to boiled starch overcomes "gluing-action". Your iron flies on wings.

No more iron sticking, dragging or scorching. And your SATINA-Ironed things smell sweet as summer!

Switch from slow-ironing to "SPEED-IRONING" When you buy starch buy SATINA, too!

- Clothes Stay Cleaner; Look Newer; Smell Fresher
- Costs Less Than 2¢ a Starching
- Easy Directions with Package

BURPEE'S "PRIZE" FLOWER SEEDS

50¢ VALUE—ONLY 10¢

Accept two 25¢ packages of 1951 prize winning Burpee's Flower Seeds...1 Marigold; 1 Petunia, assorted colors—**PLUS** a full size package of SATINA . . . ALL for only 10¢! Mail coupon today.

SATINA, Dept. AA, Box 110, New York 46, N. Y.
I am not as yet a SATINA user. Enclosed find 10¢ coin for "TRIPLE-BARGAIN" FLOWER SEEDS-SATINA offer.

NAME_____

STREET_____

CITY_____ZONE____STATE____

Offer expires Oct. 31, 1952

disc makers who are steel makers

For extra disc life you will want to know that the people who make La Belle discs make their own steel.

Because we make our own steel we don't have to "shop the market" in these days of steel allocation. Nor do we trust to others the delicate art of steel formulation. Step by step our own skilled steel craftsmen have complete control of every manufacturing process.

This constant control results in a quality disc from the world's largest tool steel producer — Crucible. Look for the triangular trade mark ☆ of La Belle, your mark of quality.

La Belle discs are available for every disc harrow or plow ever made . . . and for your kind of farming.

CRUCIBLE

AGRICULTURAL STEELS

CRUCIBLE STEEL COMPANY OF AMERICA
OLIVER BUILDING, PITTSBURGH, PA.

STAINLESS • REX HIGH SPEED • TOOL • ALLOY
MACHINERY • SPECIAL PURPOSE STEELS

The facts about polio [*From page 20*]

and permanently crippled as a result of the disease.

7. Does polio strike more children than adults?

Yes; only about 25 percent of the reported cases in this country are over 16. The number of older patients is increasing, however.

8. Why are some people paralyzed and others not?

The virus sometimes attacks many nerve cells and sometimes a few. Paralysis occurs when all the motor cells controlling a muscle are affected. Weakness occurs when some, but not all, of these cells are affected.

9. Are polio epidemics getting worse?

In the number affected, yes. However, not as much permanent crippling results.

10. How long does it take from the start of polio for the symptoms to appear?

Roughly from 7 to 14 days, although the incubation period may be from 3 to 35 days.

11. What is the Kenny treatment, and where can you get it?

The Kenny treatment, named after Nurse Elizabeth Kenny, consists of the application of moist heat and early and prolonged physical therapy. The same principles of treatment are used in 98 percent of the hospitals caring for polio patients today.

12. How long is polio painful?

Usually only during the acute state (7 to 10 days), although severe cases suffer pain for longer periods. Application of hot packs or hot-water baths will help to lessen the pain.

13. Must all polio patients go to the hospital, and do all hospitals accept polio?

No, not all patients; only those seriously ill or who live far from medical services. With favorable home conditions, a hospital nearby to handle emergencies, plus available medical, nursing, and physical therapy services, care at home may be desirable. Almost 1,000 hospitals now admit acute polio cases. Your local health department can advise you where the best-staffed and -equipped polio units are in your area.

14. What is the usual treatment for polio today?

First, immediate medical attention, bed rest, and good nursing. Then, moist heat may be used. Good positioning in the bed, including the use of a firm mattress and footboards, is important. Early use of physical therapy is essential—first with the therapist moving affected parts. Then, as power returns, the patient does special exercises under the therapist's supervision. Other physical therapy equipment, including a pool, may be prescribed by the physician.

15. How do you find good medical care?

By consulting your family physician and the hospital. Doctors who have had experience with this disease are known to their colleagues.

16. How long after the acute state can maximum recovery be expected?

Usually within 18 months, although there have been cases where improvement occurred after two or three years.

17. How can I help in the fight against infantile paralysis?

By getting in touch with your own local chapter of the National Foundation for Infantile Paralysis. You can help with educational work, volunteer your service to hospitals and homes of polio patients, and help raise necessary funds through the March of Dimes.

18. If polio comes to my family, how can I get help in paying bills?

Get in touch with your local chapter of the national foundation immediately. The chapter is prepared to assist, in whole or in part, as long as necessary.

19. Why should a doctor be called promptly when someone is sick during polio season?

Because early bed rest and supervision by a physician may prevent serious damage, if it is polio. Patients who continue to go about their daily activities during the early undiagnosed stages are the ones likely to have the severest crippling.

20. What should I do to protect myself and my family from polio?

Do wash your hands carefully before eating and always after using the toilet. Keep food clean and covered.

Do allow children to play with friends they have been with right along. Keep them away from new people, especially in close daily living.

Do watch for signs of sickness, such as headache, fever, sore throat, upset stomach, sore muscles, stiff neck or back, extreme tiredness or nervousness, trouble in breathing or swallowing.

Do put a sick person to bed at once, away from others, and call the doctor. Quick action may lessen crippling.

Do telephone your local chapter of the National Foundation for Infantile Paralysis if you need help.

Don't get overtired by hard play, exercise, work, or travel. This means men, women, and children.

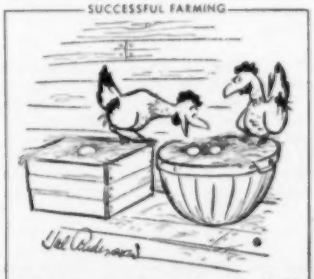
Don't get chilled. Don't bathe long in cold water, or sit around in wet clothes.

Don't have mouth or throat operations during a polio outbreak.

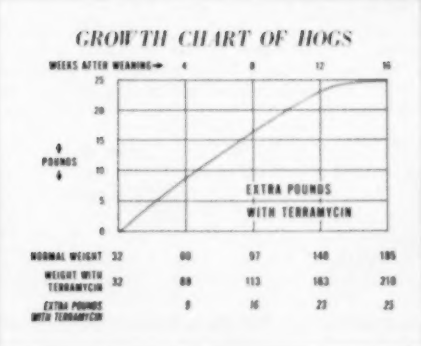
Don't use another person's towels, dishes, tableware, or the like.

Don't take your child out of camp or playground where there is good health supervision. **END**

SUCCESSFUL FARMING



"What are these, Gertrude . . . samples?"



The chart tells the story of the remarkable growth powers of Terramycin, discovered by Pfizer and proved out for use in feeding by teams of Pfizer animal nutritionists. You can get the growth-stimulating benefits of Terramycin for your hogs in the feed supplements of leading manufacturers. Terramycin is the *best* antibiotic for hogs. Right now, at the start of the fattening period, is the time for greatest growth increases. Does the feed you buy contain Terramycin?

Terramycin

...from the world's largest producer of antibiotics

Pfizer

Chas. Pfizer & Co., Inc., Brooklyn 6, New York
Headquarters for antibiotics and vitamins for animal health and nutrition

Super-Deluxe Model DWA-1150.

LIGHTENS YOUR WORK, BRIGHTENS YOUR KITCHEN!

New Refrigerator by Deepfreeze

Think of the many time-saving features you've always hoped someone would build into a refrigerator. You'll find them *all* in that beautiful refrigerator pictured above. It's the new, improved Refrigerator by Deepfreeze, makers of the world-famous Deepfreeze Home Freezer!

You can store a full week's supply of vitamin-rich, flavorful frozen foods in the Genuine Deepfreeze Freezer Compartment. Lifetime aluminum shelves provide space for items of all shapes and sizes, including gallon milk jugs and a huge turkey. And the transparent twin crispers keep a half-bushel of vegetables and fruits garden-fresh!

The "Door that Stores More" is a story in itself, for it gives you not just shelves, but *features* in the door! In addition to the exclusive "Handy Jugs" for juices, there's a Butter Box that keeps butter easy to spread, unique extra-capacity storage for eggs and bottles, and the exclusive "Handy Bin" that preserves small fruits and vegetables.

Choose your new refrigerator from the complete Deepfreeze line of eight models in 9.3 to 11.5 cu. ft. sizes. The familiar name Deepfreeze is your assurance of top quality and long, faithful service. Lighten your work and brighten your kitchen—see your Deepfreeze Dealer!

Genuine Deepfreeze Freezer Compartment

Only the Deepfreeze Refrigerator has this super-efficient genuine Deepfreeze Freezer Compartment. Freezes and stores approximately 50 lbs. of foods, keeps ice cream hard. Separate freezer shelf holds ice cube trays.

Automatic Defrosting—Set It, Forget It!

Deepfreeze does the rest! No pans to empty. No mess. No wiping out the refrigerator interior. No shifting or removing foods from the refrigerator. Defrosting takes place so quickly that frozen foods are not affected.

Built like a Deepfreeze Home Freezer!

The Deepfreeze Refrigerator is built to the same high standards as the famous Deepfreeze Home Freezer—the original home freezer made only by Deepfreeze Appliance Division. Lucky is the woman who has both of them!

Deepfreeze Home Appliances

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"POOR" FARMS—*an outdated national luxury*

The credit, tenancy, and soil problems of a million "poor" farms can be solved, but employment and management help must be included. The time is now

By Charles Kellogg

Doctor Kellogg is chief of the U. S. Soil Survey and a world authority on soils and the problems of the people who till them. Here is his dynamic plan for salvaging unproductive farms in America. We believe it is a significant step toward solving this age-old problem.—The Editors.

Now, when the country needs full protection, we should tap the pool of over 2½ million man-years of unused labor in rural areas. We simply cannot afford this waste of labor. Nor can we afford the waste of soil that goes with poor land use.

W. W. Wilcox and W. E. Hendricks measured the problem in a special report for the Joint Congressional Committee on the Economic Report. First, they report 1 million farm families with able-bodied operators producing a gross of less than $1,500 each, including on-farm consumption. Besides these are many others on farms working at far below normal efficiency. In addition, many other underemployed people live in the country. The two investigators arrive at a total pool of *2½ million man-years of unused labor!*

Where are the poor farms? Some are in every county. A few are concentrated in the Southwest, in the Pacific Northwest, and in the Northern Lake states. The bulk of the problem is in the southeastern part of the country—in the Southern Appalachians, in the Middle Atlantic states, and in the South from east Texas around to southern Maryland.

Modern agricultural science and the general prosperity of farmers during recent years have passed by these poor farms. We expect individual failures and cases of poverty in agriculture, of course; but this colossal problem goes way beyond such cases. We must look for other causes.

Why are the poor farms poor? Some are on *less responsive soil*. Some are *too small*. But the basic difficulty is *poor farm management*, to which *bad tenure arrangements* and *inadequate credit* contribute.

The original settlers who got onto poor soil probably were as sound and industrious as the more fortunate ones who got onto good soil. Whether or not a soil is "good" for farming, however, depends on how it is managed.

It is true that a large fraction of the poor farms are on soils that give low yields with old-fashioned methods; but good managers have shown what can be done. Thus, we see productive farms, poor farms, and tracts of brushland all on the same kind of soil and all having similar potentialities.

Small size is perhaps most commonly given as a cause for poor farms—some *are* too small. Although important, small size is a lesser cause than commonly supposed and less so than it was a few years ago. By far the larger fraction would have a large enough business if they followed good management on the cropland and made full use of the noncropland for pasture and woodland.

Uncertain tenure accounts for a large fraction of the poor farms. Many poor farmers rent land from year to year under arrangements that give them no incentive whatever to build up their farms to a high level of production.

Lack of suitable credit is often given as the chief handicap to poor farmers. It is true that for those who change poor farms to good farms, credit is essential—but credit by itself would scarcely touch the hard core of the problem.

Most poor farms are poor because of poor management. One should not say all. We know that other factors are involved. All of these interplay to keep management at a poor level. [*Turn to page 114*

Bulk feed handling

means less labor, lower cost!

By Vernon Schneider

Lifting and dumping sacked feed is a daily, back-breaking ordeal on many livestock and poultry farms. On top of that, feed prices are up due to higher labor and operating costs at the feed mills and a steady increase in the price of sacks.

Bulk feed is nothing new—for years it has been used in large, specialized feeding operations on the West Coast. Only recently has the bulk idea spread to other parts of the country—especially the heavy grain-producing and feeding areas. Although bulk feed appeals to the big operator, the small feeder and the diversified farmer also are finding a place for bulk feed in their feeding programs.

The interest in bulk feeding leaves many questions unanswered—both at the feed mill and on the farm. There seems to be no definite pattern on how bulk feed is delivered, how it is stored, and how it is removed from the bin. It's pretty much an individual problem each farmer has to work out for himself. Eventually, it will find a place in his feeding program.

Here are some of the advantages of bulk feed which made it popular with small as well as large livestock and poultry feeders:

1. Bulk handling of feed saves the customer from $6 to $9 per ton over sacked feed. The exact amount of savings will vary in each case, [*Turn to page 122*

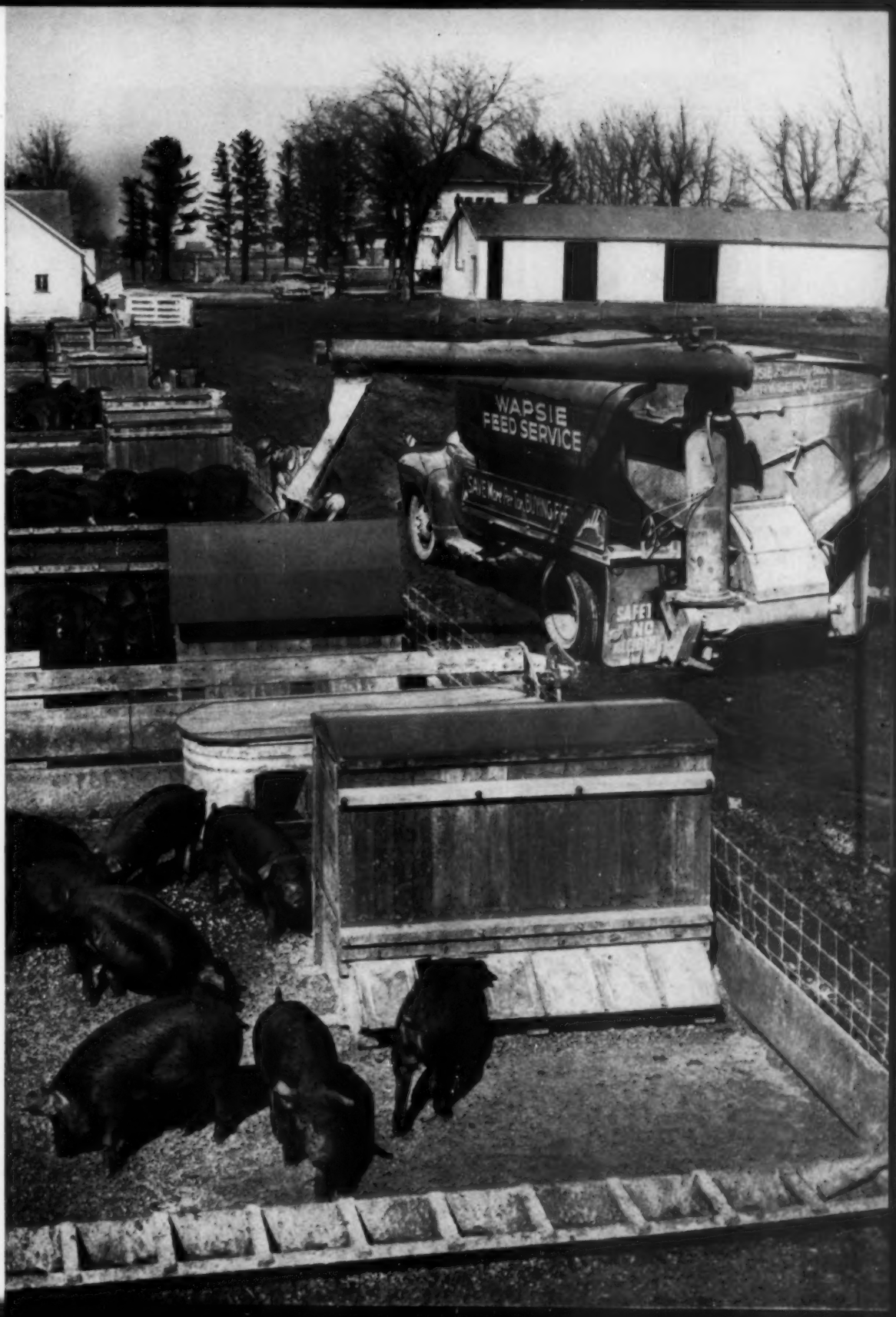
Mixing, weighing: Bulk feed is mixed same as bagged feed at Wapsie Feed Service, Independence, Iowa. Ingredients are kept in separate bins. Chutes bring feeds to mixer. Each is weighed before mixing

Loading truck: Feed is loaded by gravity through openings in top of truck. Delivery tank has three compartments, enabling truck to make several feed deliveries each trip. Most tanks hold 6 to 7 tons

Photographs: Pease

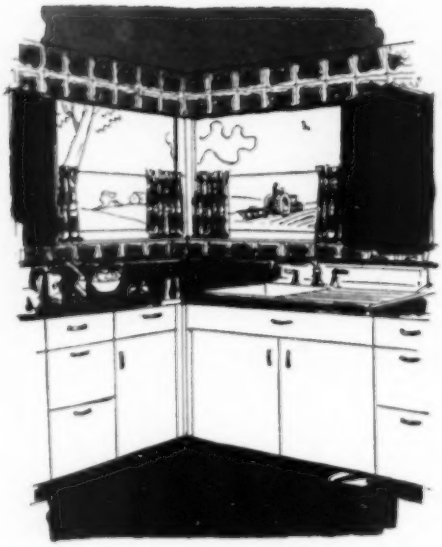
Weighing feed: Truck is weighed over scales before and after loading. If load includes several feeds, truck is weighed before and after loading each feed. Analysis tag of each feed is attached to invoice, weight ticket

Unloading on farm: Charles Gerken, swine producer in Buchanan County, Iowa, has feed spouted directly into self-feeder. Each load saves 2 to 3 hours' feeding time. Feed also can go in overhead bins


WAPSIE
FEED SERVICE
SAFETY
NO

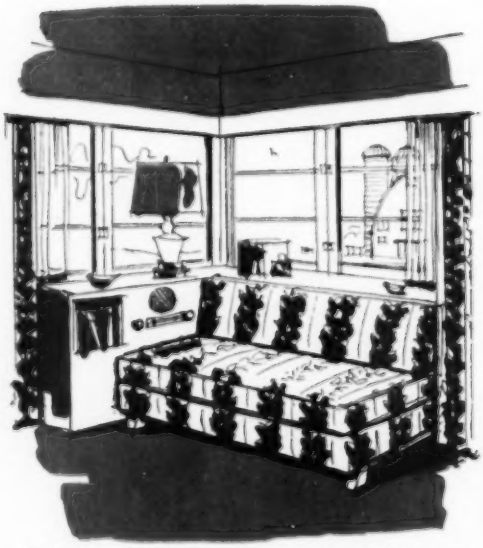
Curtains for corners

By Nancy Wilson



Corner windows in your kitchen have endless possibilities. If you need light, but want to conceal an unattractive view, put up gay cafe curtains across the lower half of the window. Trim the walls above and below the windows with a border of wallpaper that matches the curtains, to tie the room together

During the last few years, corner windows have really come into their own as one of the most popular features of new and old homes. Many homemakers, however, soon were faced with the more practical problem of how to curtain them. Many corner windows were hung with a pair of sheer curtains, then ignored. Don't take this attitude toward *your* corner windows—make use of the under-window wall space not available with ordinary wall windows. Of course, you can't curtain corner windows just as you would the other windows in your home, but you can use just as much variety in drapery style if you adapt it to the windows. By treating the two windows as a single unit, you can easily avoid a cluttered effect.



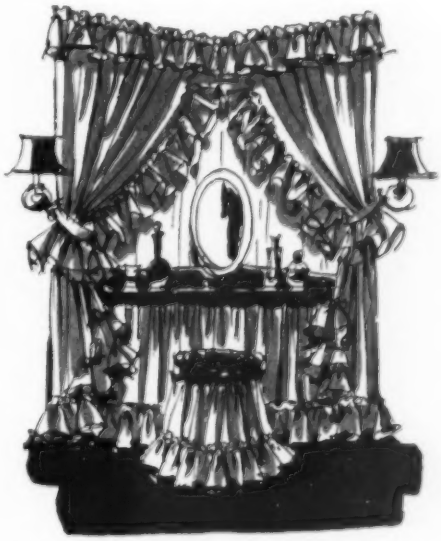
A pair of curtains plus a clever built-in unit makes these corner windows the outstanding feature of the living room. Apron-length glass curtains shield out hot sunlight, while floor-length draperies add color. The built-in unit makes use of space under the window and is convenient for furniture placement

Junior can do his studying and you can work on your household accounts in the privacy of your own bedrooms with the addition of a desk and bookshelves within easy reach under the corner windows. Apron-length curtains on a traverse rod will shut out distractions. The cornice gives a finished appearance

Simple draperies gain interest through shifting patterns of sun and shadow that filter through a wide mesh. Coarse net material screens out neighbors or an unpleasant view, but still admits plenty of light. The decorative cornice hides drapery tops and extends around corner over both windows

Drawings: Kiss

It's easy to get a dramatic effect if you're lucky enough to have picture windows in a corner. Hang floor-length draperies on a stationary, curved rod that extends around the corner. Light control is simply a matter of pulling back one side or the other in a graceful swag and holding it with a band of same material



Haven't you ever dreamed of a dressing table all your own? It's easy when you make use of the even lighting you get through your corner windows and put up a triangular table top between them. Sheer organdy, ruffled tieback curtains form perfect frame for ruffled skirts on table and stool. END

Streamlined broiler production

By Delmer Groves

Shipping Midwestern grain east to feed broilers, and then buying back the finished birds to meet consumers' needs in the same area didn't make sense to J. Frank Kendrick and his son, James, Champaign County, Ohio. Why not produce broilers in the same area where feed is grown, they reasoned. This led them to establish Kenbroil Farm, which is located in a heavy grain-producing area, yet handy to several large cities. The farm is managed by D. D. Dowds, who operates a farm-management service.

Before building, the Kendricks looked over broiler plants in a dozen states. Then they combined the best ideas they saw into their own plant. The building is long and low, covering 19,200 square feet. Only the feed-handling and "control tower" section at the center reaches above the one-story level.

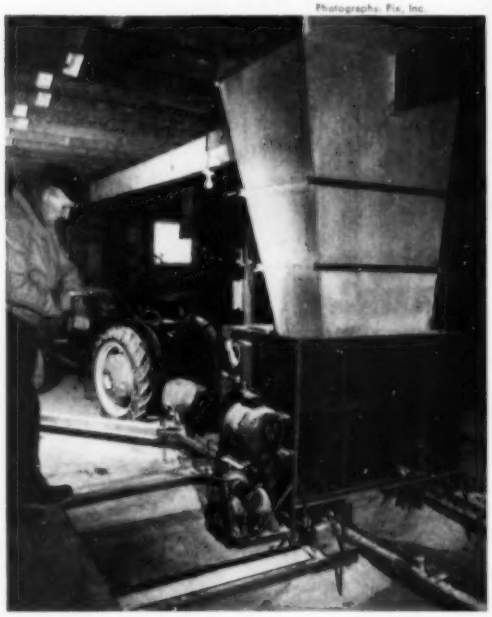
Concrete blocks were used for the foundation under the entire building. The control tower is built entirely of concrete blocks, providing a double fire wall between the two wings. Regular 2x4 studding was used in the broiler wings. These were covered inside and out with a weatherproof wallboard made of cement and asbestos.

An earthen floor is used throughout the building, except in the control tower. First, the dirt floor was covered with a 1½-inch layer of finely crushed gravel. Then a 3- to 4-inch covering of clean, crushed corncobs was placed over the gravel for the first brood of chicks. For each succeeding brood, several more inches of cobs are added to the built-up litter. No lime is used.

The Kenbroil plant was built with sanitation in mind. Observation windows, built into each wing at the control tower, enable [*Turn to page 70*

Overhead feedbin holds feed supply. A chute carries feed to automatic feeder below. Feed is delivered to farm in bulk. Water supply is held in 800-gallon tank at left

Photographs: Fix, Inc.



Automatic feeders keep feed supply before chicks at all times and are regulated at a master control panel. Stand-by generator, run by small tractor, provides emergency power

Exterior view of Kenbroil broiler plant. Note "control tower" at center of house which serves as fire wall. Propane-gas tanks in foreground provide gas for space heaters

Will beef cows fit your farm?

By Francis Kutish and Richard McWilliams

Every farm isn't set up to handle a herd of beef cows. If you can meet the conditions outlined in the drawings below, you'll have a much better chance for success

If you go into beef cows, plan to keep the herd for at least 10 years

The beef-cow herd must fit into your farm's general cropping plan

You'll need a big supply of feeds such as grass silage or corn silage

Rough guide for the size of the herd is 1 cow for every 10 cultivated acres

Drawings: Hiser

Invest only in quality cows and bulls for your beef enterprise

Should I put a beef-cow herd on my farm? Hardly an extension livestock or farm-management meeting goes by without this question being asked.

Two reasons lie behind most farmers' interest in a beef-cow herd. First, most farmers have an abundance of roughage. Second, the recent high cost of feeder cattle has made many farmers think about raising their own feeders.

Beef cows, grass, and roughage fit well together. If you have a big supply of rough feeds, grass silage, hay, corn silage, or corn fodder, it probably is wise to have a beef-cow herd. Beef cows can handle such rough feeds to the best advantage.

Beef cows can consume this additional roughage and also add to the net farm income. Even on our good Cornbelt farms there is a lot of coarse roughage that does not have a market. This is certainly where a beef-cow herd would fit.

But there are enough "if's" in the cattle outlook picture to call for some careful planning before you put a beef-cow herd on your farm.

Plainly, the days of riding the beef-cattle business up for a speculative profit are over. Cattle prices are headed back toward a more normal relationship with those of other livestock. There's a place for beef cows on your farm *only if a beef herd fits in as part of the permanent, over-all livestock production program.*

So, if you go into the beef-cow business today, count on staying in *for 10 years* at least. This is not a business for the "in-and-outer." And as we come closer to the cattle cycle peak, the risk involved is greater than usual. Cow prices have been bidden up to the point where it probably takes more dollars invested to earn a dollar of profit with a beef herd than with any other farm enterprise.

How many cows should you plan to have on your farm? Our studies of farm records kept by Iowa farmers show that a beef-cow herd usually is a side-line business. The Cornbelt farmer who relies on a beef-cow herd for his main source of farm income is seldom among the high-profit farmers at the end of the year. Farm account studies in Illinois and Indiana back this up. Usually not more than 10 percent of the total net farm income comes from the cow herd. That's not much money.

Raising beef as a main source of farm income does not fit the small farm very well. It's an extensive business, needing many acres of land to produce $1,000 of income.

At today's prices, the herd would have to include *not less than 100 cows* to net an income large enough for the standard of living most farm families want. But beef raising requires little labor per head. That makes a cow herd a good side-line enterprise for many Cornbelt farmers—and it should remain so.

That's why you see a large number of small cow herds of 8 to 12 head in number when traveling over the Cornbelt. Many of these farmers use 1 cow to every 10 acres of cultivated land as a partial guide. However, the size of your beef-cow herd necessarily will be controlled by the amount of pasture and roughage available.

The large operator will find permanent pasture practically a "must." A man with only 10 or 15 cows on a small farm may ride through a seeding failure. But the man who has expanded his cow herd too far may have to use high-quality hay or grain to carry a bunch of beef cows through a season when the rotation pastures fail. Such a feeding program certainly would add considerable unnecessary cost to the calf crop.

Getting into the beef-cow business on present-day figures runs into money. Good breeding cows will cost from $300 to $450 per head. A herd of only 10 cows at these prices will represent an investment of $3,000 to $4,500. And that doesn't include the bull, which at today's figures will include a sizable investment—and a problem.

Certainly a good-quality, purebred bull is a "must" in the cow-herd business. Other than [*Turn to page 102*

Before: The bookcases above were set into the room haphazardly with no thought of co-ordinating them to the room's architecture. Dark wood of the cases and the mirror contrasts sharply with the wall tone

After: The bookcases were raised to the height of the door casing, and cupboard space was added below. All of the woodwork and the walls were painted to match, and a plate rail added at top for interest

You have more room *than you think*

By Joan B. Scovel

When you moved into the house where you are now living, it's a good bet that you thought you had all the storage space you would ever need. But it didn't take long to discover that the closets and cupboards were only half the size your family required! As a result, you have to keep books in cartons in the attic, your sewing materials are in a box under the bed, and all your closets shower you with their contents each time the door is opened. Take a look around your house—in the hallways, at the blank wall spaces around windows and doors—and you'll find the potential for many extra feet of storage space.

Your living-room window, for instance, probably has several extra feet of wall space on either side that is hard to use in your present room arrangement. Shallow closets built on either side of the window, opening into the room, provide space for coats, boots, rubbers, card tables, and folding chairs. By putting mirrors over the sides of the closets which turn toward the window, the effect of a bay window is achieved. Or, if you prefer, bookshelves might be built on those narrow walls to house either your books or attractive house plants.

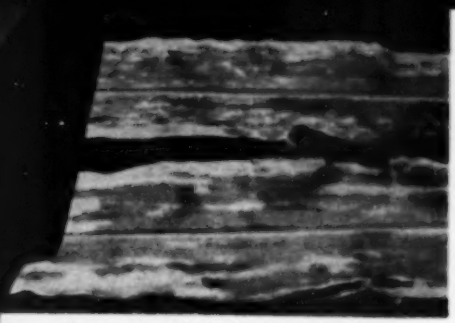
Deep drawers in your kitchen for flour, sugar, potatoes, or vegetable storage are simple to build. [*Turn to page 78*

Before: In this small house, storage space was at a premium. The uninteresting, arched doorway and the two useless niches in the wall destroyed any possibilities for a furniture arrangement in this corner of the room

After: The archway was squared by building bookcases around it and placing much-needed cupboards beneath them. The one on the right houses the radio, record-player. Note that walls and built-ins are the same color

Bookcases built around an ordinary double window have made an attractive center of interest. By extending the cases over the window, a recess was created for a sofa. Simple draperies and the pictures add final decorative touch

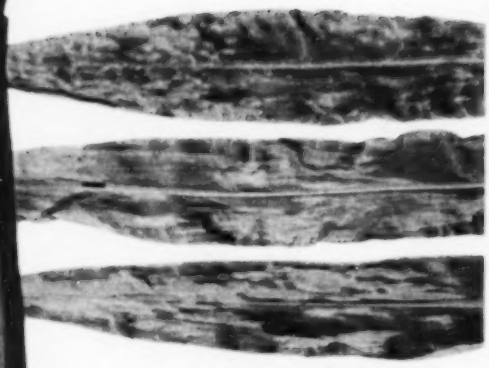
Seedling blights sometimes strike even though all hybrid seed corn now is treated



Bacterial wilt is identified by narrow streaks which run from the irregular areas

Keep

Black bundle complex caused cluster of nubbins on plant



Leaf-blight lesions are boat-shaped, appear in cool, humid Augusts, and soon kill leaves

Gibberella stalk rot (healthy cross section at left) may sometimes be identified by pink color — usually resembles Diplodia rot

Smut has consumed the ears on this stalk — it also attacks other aboveground parts. Corn breeders are working to build in greater smut resistance

Photographs: Steele, Koehler

corn healthy

By Richard Crabb

By now you owe yourself about 35 bushels of corn—maybe 40 or 45 bushels—for every acre you have put in corn this year.

Nearly every Cornbelt farm record book makes it clear you'll need from 35 to 45 bushels of corn per acre this fall just to meet the costs of land, seed, labor, and machinery. So, if you harvest less than those break-even bushels, you will have cut into your net worth. But if you haul 75, 100, or more bushels per acre out of your cornfields this fall, you are headed for a *highly profitable corn crop*.

Most of your costs are now in the "fixed" class—either already invested or positively committed for such items as side-dressing fertilizer, cultivation, spraying materials, and harvesting operations.

Fortunately, there still are a number of "Keys to More Corn" which you can use. And, even better, these keys are ones which add relatively little to your costs. Their use stands to increase greatly your chances for larger corn-farming profits this fall.

As June moves in, we are approaching the period of the growing season when the corn crop will have to stand up against its worst battering from the four perils of the cereal world—disease, starvation, insects, and weeds. [*Turn to page 84*

Keys to More Corn—Number 5 of a series

Diseases which attack the mature ear

Fusarium pink rot attacks single kernels. Hogs dislike taste

Diplodia rot in three stages. Nonpoisonous—hogs will eat it

Gibberella starts at ear tip. Same fungus as causes scabby barley, it makes hogs sick

Root rot destroyed the roots at left (healthy roots, right). Injury allows disease entry—reason rot often goes with rootworm damage ↓

Diplodia stalk rot is the Number 1 cause of stalk breakage. Infection starts at the base or lower joints. Same organism may cause ear rot →

Do you expect too much

from your refrigerator?

1 Keep frozen foods without wrapping? No! Wrap well in moisture-vaporproof material

2 Keep frozen foods indefinitely? *Only* if freezing compartment stays near zero degrees

3 Hold frozen desserts firm? This takes extra-cold unit or colder setting of control dial

4 Quick-freeze unfrozen foods? *Only* if freezing compartment is as cold as a real freezer

5 Fast-chill foods in large containers? Divide the portion, cool it more quickly and safely

6 Freshen, crisp vegetables on an open shelf? No! Tightly cover to prevent loss of moisture

7 Safekeep berries in their baskets? Better sort them; spread out flat; leave uncovered

8 Keep leftovers moist in uncovered dishes? *Only* in an "extra-moist" type of refrigerator

9 Fresh-keep meats rolled up in paper? Store flat, and wrap loose so the cold air gets in

10 Hold safe, level cold though overcrowded? Leave spaces for plenty of cold-air circulation

11 Seal in cold air with worn-out gasket? Keep hands off! Harm is done by greasy fingers

By Maurine Harris

You're not alone if you're uncertain as to just what the new refrigerators are supposed to do. With so many models and so many features, it's easy to get confused.

Before you look for a new refrigerator, decide *what you want it to do*. Then find one you're sure fills the bill. After you have your refrigerator, *read the instruction book*—and save it for future use. Then, be fair—don't expect your refrigerator to do more than it was designed to do.

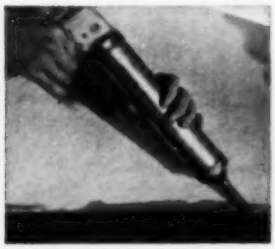
Use of the freezing compartments in the new refrigerators is sometimes misunderstood. Is an "across-the-top" freezing compartment the same as a home freezer? Many people think that because the ice-cube compartment is a different shape, or is larger than the one in the old refrigerator, it is a "home freezer" built right in. Sometimes they are disappointed to find that, though frozen foods stored in this compartment feel "hard as a brick," they slowly spoil if kept too long.

The thing that makes the difference is *not* the size, shape, or location of the freezing area—or whether or not it says "Freezer" on the door—but the *temperature* at which it keeps foods.

Many foods that keep "good as new" up to a whole year at zero degrees will change color, become flat-tasting and mushy after only *one or two weeks* at 20 degrees above zero! So, if you expect your refrigerator freezing compartment to keep frozen foods as well as a freezer would, you must be sure it has a freezer temperature—that is, zero or close to it.

[*Turn to page 65*

Foundation repair



Apply calking compound or packaged filler to foundation cracks with a gun or a knife

Deepen larger cracks to depth of ½ inch or more. Fill them with a packaged mortar or make your own

For a wide joint separation, buy a tar strip and prod into the crack with a screwdriver

Spots where the earth has settled around foundation should be filled in with new earth and tamped down

Gutter and downspout repair

Checking gutter pitch for drainage is done with carpenter's level or by emptying water into gutter

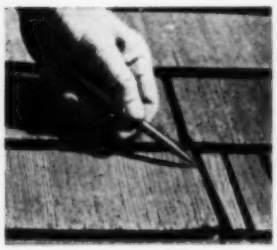
Clean out debris which collects in gutter with a whisk broom to prevent clogged drains and rust

Inside coat of undiluted asphaltum paint preserves galvanized gutters. First, be sure surface is dry

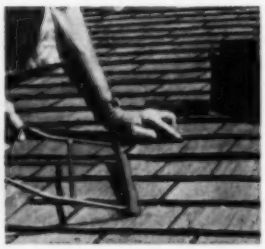
New hangers will correct gutter pitch. Bend strap front under the gutter till it locks in sh

Guide to spring house repair

Leaky-roof repair



Three shingle splits in line will leak. Put roofing paper under top and center shingles



Cut roofing paper ½" wider than width of shingle end and slide in place, using a simple lifting tool

Damaged composition shingles can be removed by loosening nails, sliding old one out

Roofing cement, applied under and around metal flashings, prevents leaks. Use heavy application

Spring house cleaning is familiar to every man as a time when he is just not wanted around the house. This year, while your wife is finishing up her chores *inside* the house, why not take time for some small repairs that would make the *outside* of your home as neat as the inside?

In drawing up your list of spring repair jobs, it's best to start at the very beginning; the foundation of your home.

The underpinnings of the house should be checked for cracks in the wall. Check the spread between foundation and basement window frames. Also look for crumbling masonry, breaks in termite guards, spreading joints, and low spots around the foundation.

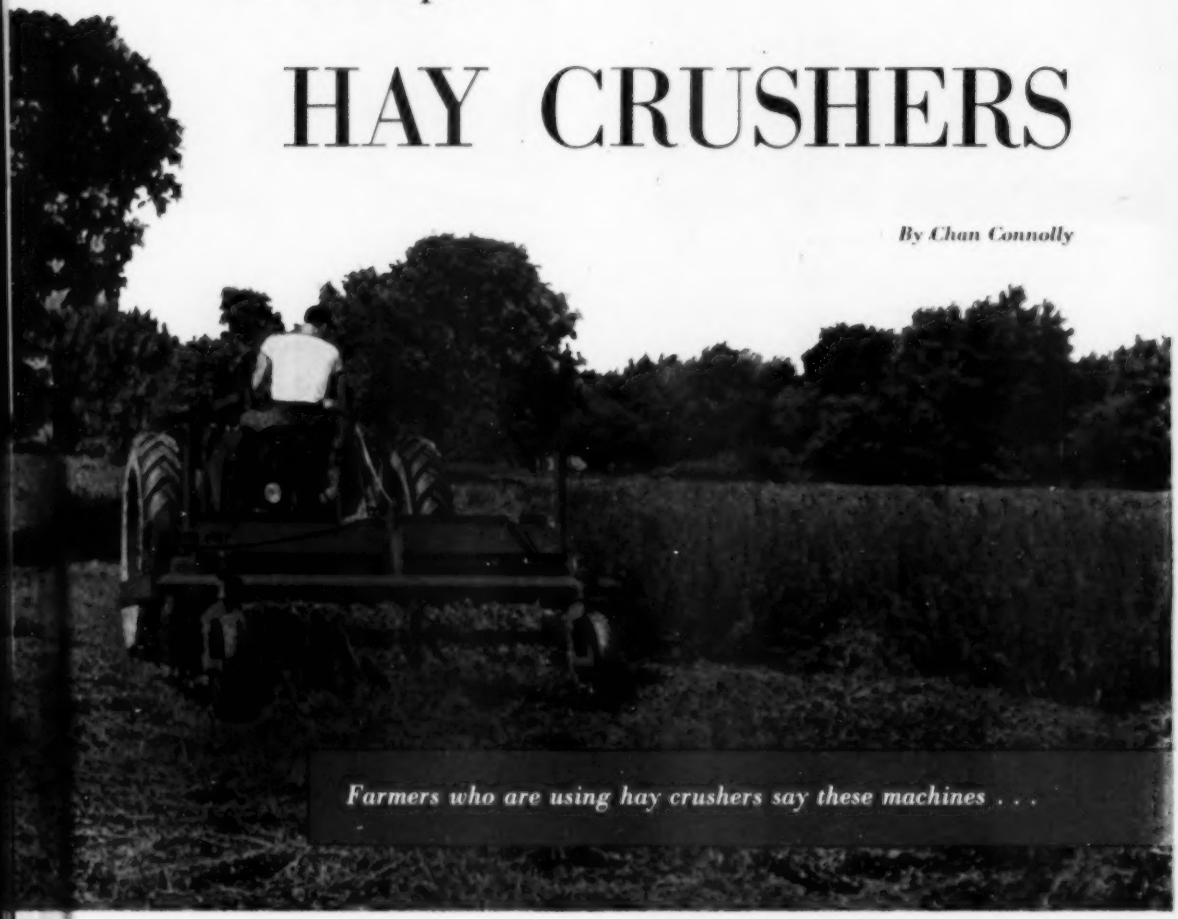
Small cracks may be filled with asphaltic cement, calking compound, or a packaged crack filler. Larger cracks can be filled with stiff mortar made of 1 part cement, 2 parts sand, and a little water.

Scratching with a dull knife will reveal whether mortar joints in outside masonry walls are sound. Where loose or crumbling mortar is found, the cavity should be deepened with a hammer and chisel and thoroughly cleaned. New mortar, either ready-packaged or made of a mixture of 3 parts fine sand, 1 part cement, and 1 part hydrated lime, should be pushed into the cavity as far as possible. [*Turn to page 88*

Farmers report on

HAY CRUSHERS

By Chan Connolly



Farmers who are using hay crushers say these machines . . .

How good are hay crushers? Many farmers, in search of better ways to make hay, are asking that question. The answers are a little slow in coming because hay crushers still are fairly new. But 18 farmers in northwest Ohio are sold on crushing their hay.

These 18 owner-operators have a total of over 10,500 acres of hay- and straw-crushing experience. Visits were made with each of these farmers. What they have to say may help you decide whether a hay crusher would fit on your farm.

The first thing these farmers mentioned was adequate power. The power needed for mechanical hay crushing depends upon the design of the crusher. Heavy 2- or 3-plow tractors are best for the offset crusher. With this type, the hay is crushed as it's mowed. As the crusher follows the mower, offset crushers have considerable side draft. Two-plow tractors are satisfactory for the trailer-type crusher which follows directly behind the tractor, crushing the previously mowed swath.

Under ideal conditions, a hay crusher may cut and crush nearly as many acres daily as an ordinary 7-foot power mower. With less favorable conditions, capacity may decrease to 60 or 70 percent of that of the conventional mower. Weeds and foreign material cause plugging of the rollers. This results in decreased crushing capacity.

All operators agree that crushers work best in hay of good length that is not down or tangled. Short hay has a tendency to bunch. Some operators find that hay crushers operate best on cloudy days, or after dew collects on the crop.

Crushers do the best work in alfalfa, alfalfa-clover, alfalfa-clover-grass, or clover-grass mixtures. In general, the coarser the stem, the more drying time is saved by crushing. The more mature the hay becomes, the less drying time is saved by crushing.

Three important advantages of using mechanical crushers

Lawrence Spyker, of Lima, Ohio, found his hay crusher did not work well in extremely tall hay, such as a mixture of Sudan grass and soybeans. Neither do some crushers work well in a mixture having a high percentage of Ladino clover.

The 18 owner-operators felt that hay crushers offer three important advantages: First, a crusher will save drying time in the field. Second, crushing will materially decrease leaf loss in the field. And third, crushing lets you harvest better-quality hay, retaining more of the essential nutrients.

According to Dr. L. A. Moore, Bureau of Dairy Industry, U.S.D.A., it requires an average of 72 to 82 hours to sun-dry hay for the mow. It takes from 18 to 48 hours of open-air drying before hay is ready to put in the barn for final drying with forced air. Crusher operators believe this time can be reduced 30 to 50 percent with the use of hay crushers.

This time element, of course, decreases the weather gamble in haymaking. The normal practice for those who use crushers is to cut and crush one day—then bale, chop, or put up loose the next day. When ideal drying conditions exist—or when mow dryers are used—hay may be baled, chopped, or put up loose on the same day it's crushed. Hay mixtures with a large percentage of Ladino clover may require from 1 to 2 days longer.

Leaf loss is much less when hay is put through a crusher

Without exception, all owner-operators noted a substantial decrease in field leaf loss after using a crusher. Paul Jennings, McClure, Ohio, stated that the leaves on crushed hay seemed to be glued to the stems. This statement typifies the feeling among the other operators. Leaf loss is also reduced in baling, as compared to uncrushed hay.

Roscoe Zeigler, Maumee, Ohio, who owns a hay crusher and pickup baler, says he could tell whether or not hay was crushed by observing the leaf loss from the baling chamber. Most operators believed their field loss was reduced 50 to 75 percent by crushing.

All 18 farmers stated that crushing helped to improve the quality and palatability of the hay. The hay had better color and more leaves. Jerome Jewers, Ottawa, Ohio, stated that crushing made his first-cutting alfalfa equal in quality to the second cutting, second cutting equal to third, and third to fourth.

Paul Shaffer, Bryan, Ohio, noted that crushed hay stays greener and fresher in storage. As 30 to 50 percent of drying time in the field is saved, crushed hay is much greener with a higher vitamin-A content. This was borne out by Blaine Segrist, Wauseon, Ohio, dairyman, who said his Guernsey milk-color rating doubled when he fed crushed hay. The result was a larger milk check.

Due to the higher percent of protein in hay leaves as compared to stems, the saving of leaves makes for a higher protein content in crushed hay.

The higher protein content was noted by Guy Cape and Sons, Edgerton, Ohio. The Capes' dairy herd dropped in production when the cows were turned out on pasture in the spring after being fed crushed hay in the winter. Three out of four large dairymen in this survey had the same experience. Cape reported a decrease from 12½ to 10 cans of milk, plus a decrease of 0.3 percent butterfat, when cattle were turned out in the spring on good clover pasture after receiving crushed hay all winter.

Milk production increased when crushed hay was fed to cows

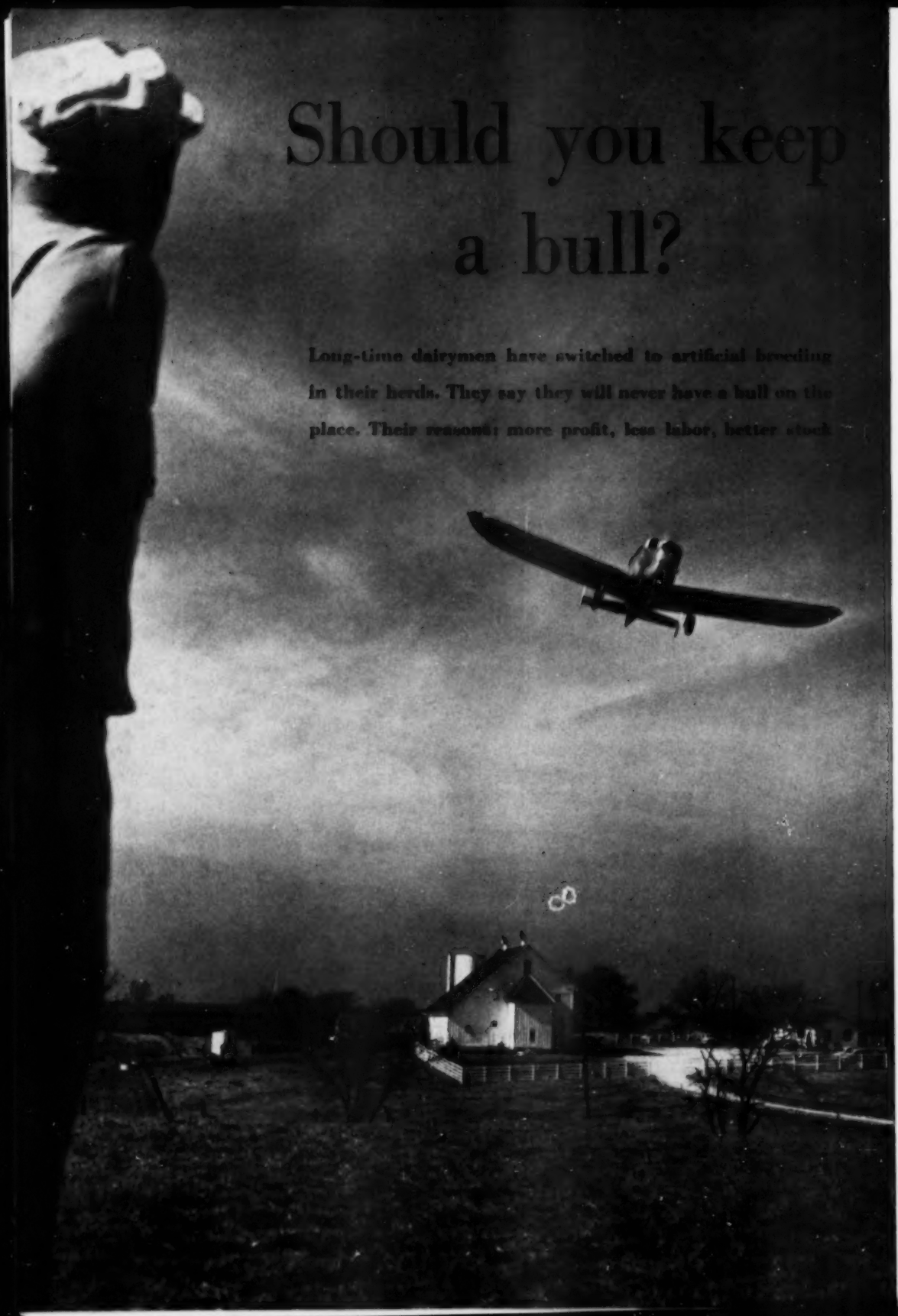
Dairyman Ray Hartman, Bryan, Ohio, had a herd average of 367 pounds of butterfat the year before feeding crushed hay. After feeding crushed hay, Hartman's cows averaged 512 pounds of butterfat. The cows averaged this in spite of the fact that Hartman fed 100 pounds *less* protein supplement per 2,600 pounds of concentrates.

Hartman attributes at least half of his increase to his hay crusher, the other half to better hay than the previous year due to more favorable weather. Other dairymen noticed it was more difficult to get cattle to consume the usual amount of grain when feeding crushed hay. But they got more milk from feeding crushed hay.

Ralph Nussen, Allen County, Ohio, [*Turn to page 134*

. . . save them time and give them a higher quality, more palatable hay

Hay above has been run through a hay crusher. The crusher doesn't mash stems but splits them so moisture can escape faster. Crushing results in less leaf loss, which means a higher nutrient content in hay


Should you keep a bull?
Long-time dairymen have switched to artificial breeding in their herds. They say they will never have a bull on the place. Their reasons: more profit, less labor, better stock

By Dick Hanson

Like many farmers today, you may be trying to decide whether or not to keep a bull on your farm. There has been a great deal of talk in the past few years regarding the use of artificial breeding. Some of this talk was favorable and some not so favorable.

Artificial insemination of cattle isn't news any more. It's out of the experimental stage. Recent U.S.D.A. figures show that about 3,500,000 cows were bred artificially in 1951.

Farmers who are using artificial breeding in their herds don't have—or want—a bull on their farms. This doesn't necessarily mean they aren't having breeding worries any more. It simply means better calves, upgraded herds, and no more breeding troubles than when they kept a bull.

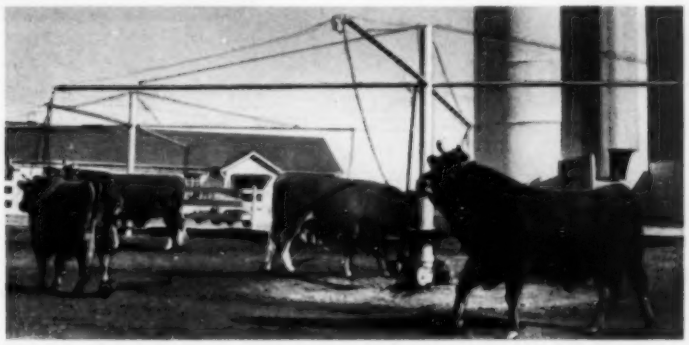
Research into this business of breeding cattle artificially is by no means complete. Scientists still are studying the system, trying to improve results. New developments resulting from this research are being passed on to the artificial-breeding associations.

To dig into this business of why farmers use artificial breeding in their herds, I visited the Springfield, Missouri, area. This immediate area, as well as a wide strip up and down the heart of Missouri, is well populated with "bull-less" farms.

Many herds in this area are serviced by the Missouri Farmers Association Breeding Farm at Springfield. This association started a breeding farm in 1946. That year, 10,963 cows were bred with semen from the bulls at the breeding farm. In 1951, about 56,500 cows were bred artificially. This increase in number speaks well for the acceptance of artificial breeding in this area.

A number of questions have popped up in the last few years concerning artificial breeding. Time and research have answered some of these questions, but farmers thinking about getting rid of their bull and using artificial breeding still have some doubts. And some regular customers need answers to a few questions, also.

J. A. White, Springfield, thought he had made a big mistake the first two years he used artificial breeding in his herd. The cows just wouldn't settle. Following the advice of technicians at the breeding farm and his county agent, White renovated his [*Turn to page 126*



1 Bulls at the artificial-breeding farm are some of the best in the country. They get excellent care and show it. By using these good bulls, farmers can breed up their grade dairy herds without the expense of buying, feeding, and caring for a high-priced bull

2 Semen is collected and handled very carefully at the breeding farm. Most breeding farms now add antibiotics to the semen

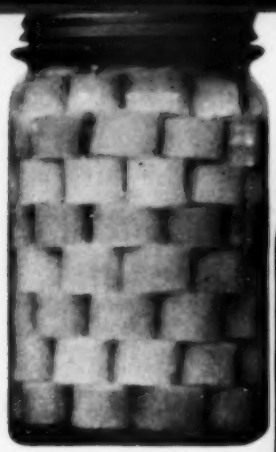
Photographs: Peaso

3 The semen is diluted so that a number of cows can be bred from one collection of the semen. Skilled technicians handle the work

4 At this breeding farm, semen is put in small test tubes and chilled. Then the tubes are packed in insulated cans for delivery

5 Cans containing test tubes of semen are loaded on a plane at the breeding farm. Three planes are used to deliver the semen

6 And here's the pay-off. The semen is dropped by parachute to the inseminator a few hours after it was collected at the breeding farm. The inseminator answers farm calls



Every jar a winner

Each pint or quart you can deserves the loving care that Mrs. William Van Peursem lavished on these Iowa State Fair winners

By Susan Menne

When the dust had settled over the deserted fairground last summer, Mrs. William Van Peursem carried home to Mitchellville 48 prize ribbons for her canned goods. Predominantly blue, these ribbons brought her grand total to 220. Two hundred and twenty prizewinning canning entries in the Iowa State Fair since 1946!

But this is not a story of prizes. Each beribboned jar that returns to the Van Peursem farm finds a home beside its fellows in a cool, dark fruit cellar. Mrs. Van Peursem's entries are not isolated cases. They are true-to-life examples of the five or six hundred jars she prepares each year.

Though your own canning schedule may not be so ambitious, now is the time to begin. Check and wash your jars beforehand. If you use rubber rings, it's best to buy new ones. Clean and check pressure canner. Your home agent will be glad to help.

Reliable recipes go a long way toward insuring colorful, flavorful canned foods. Here is an up-to-date collection for you.

Mixed Pickles With Cauliflower

Makes 7 pints

Prepare brine of:
- **½ cup salt**
- **2 quarts cold water**

Soak in brine 24 hours:
- **1 quart small cucumbers**
- **1 pint small, white pickling onions**

Drain.

Soak cucumbers and onions in cold water for 2 hours.

Drain.

Combine
- **2 cups sugar**
- **⅓ cup salt**
- **¼ cup white mustard seed**
- **2 tablespoons celery seed**

Add . . . . . **1 quart white vinegar**
- **1 cup water**

Add cucumbers and onions to this mixture.

Let stand overnight.

Drain vinegar mixture; heat to boiling.

Add . . . . **1 pint small carrots**

Cook for 5 minutes.

Add . . . . . **1 pint cauliflowerets**
- **1⅓ cups chopped green** or **sweet red pepper**
- **1 pint 2-inch pieces celery**

Add all remaining vegetables.

Simmer about 15 minutes.

Seal in hot, sterilized jars.

Pickled Cherries

Makes 5 quarts

Wash . . . **8 to 10 quarts Bing cherries**

Remove stems and pit, if desired.

Combine
- **2½ cups vinegar**
- **2½ cups water**
- **1 cup sugar**
- **¼ cup salt**

Cook to dissolve sugar.

Cool.

Pack cherries in hot, sterilized jars.

Pour syrup over cherries.

Seal.

Tomatoes

Makes 7 quarts

Wash . . . **18 to 21 pounds tomatoes**

Dip 8 or 10 at a time into actively boiling water about ½ minute, or until skins slip easily.

Dip quickly into cold water.

Cut out stem ends; peel.

Pack whole into hot, sterilized jars.

Press tomatoes down until juice fills jar.

Add to each jar
- **1 teaspoon salt**

Adjust lids.

Process in boiling-water bath for 45 minutes.

[*Turn to page 74*

Mrs. Van Peursem packs mixed vegetables for winter soup

Now see the new COOLERATOR!

The Refrigerator that has Everything

. . . Perfected Automatic Defrost

. . . Big Full-Width Freezer Chest

. . . Every kind of *Cold* You Need

. . . Plus Breath-taking Beauty inside and out

When you select a new refrigerator don't settle for less than the best! Be sure to see the big new Coolerator that has every time- and work-saving feature you can think of!

Look what you get! Perfected automatic defrost, a big full-width freezer chest that holds up to 50 pounds of frozen foods, big meat-keeper, adjustable shelves, full-width Crisp-O-Lator, butter compartment, extra shelves in the door, plus gleaming beauty in-side and out.

Coolerator and International Telephone and Telegraph Corporation are proud to bring you these great new refrigerators—the result of painstaking engineering and advanced styling. See the complete line at your dealer's today. One of them is *sure* to meet your needs exactly.

Guaranteed by Good Housekeeping

Two more of the superb new Coolerator refrigerators—the 11 cu. ft. double door model with full-width separate freezer chest and the 8 cu. ft. model with inner-door freezer—both with perfected automatic defrost.

"How to be a Part-Time Housewife" Send for free booklet with dozens of ideas to save you time, work and money—pictures and facts about Coolerator space-saving appliances. It's a gold mine of suggestions for taking work out of housework.

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Please send me "How to be a Part-Time Housewife."
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Garlic Fried Chicken
Serves 4

Cut up . . 2½-pound frying chicken
Place in refrigerator dish.
Combine 1 cup sour cream
1 teaspoon Worcestershire sauce
1 tablespoon lemon juice
2 cloves garlic, crushed
¾ teaspoon white pepper
½ teaspoon salt
¾ teaspoon celery salt
½ teaspoon paprika
Pour over chicken; cover dish.
Let stand overnight in refrigerator.
Drain and dredge in flour
Brown in ⅓ cup fat
Add . . . . ½ cup water
Simmer for 50 minutes.

Spicy Lima Beans and Sausage
Makes 4 servings

Shape . . . . 1 pound ground pork sausage into flat cakes
Fry with . . 1 cup sliced onion until sausage is done; drain
Add . . . . . 2 cups (No. 303 can) Lima beans, drained
10½- or 11-ounce can tomato soup
½ teaspoon salt
1 teaspoon chili powder
Simmer for 30 minutes.
—*Mrs. A. D. Trochinski, Minnesota*

Sauerbraten
Makes 6 servings

Brown . . . 4 pounds beef chuck roast in 2 tablespoons shortening in heavy skillet
Add . . . . . 1 cup vinegar
1 cup water
½ teaspoon whole pepper
½ teaspoon whole cloves
2 bay leaves
½ teaspoon ginger
½ cup sliced onion
½ cup sliced lemon
¼ cup sugar
1 teaspoon salt
Dash of pepper
Cover tightly and simmer slowly 2 to 3 hours until tender.
Add . . . . ½ cup flour mixed with ½ cup water to liquid
Serve gravy with meat.
—*Mrs. Chris Steele, Nebraska*

Salads: welcome as spring

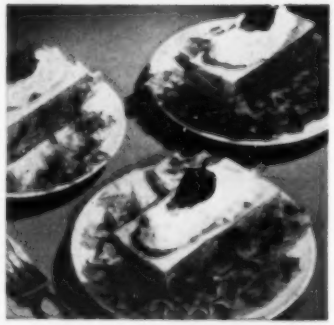
Here are salads you're bound to like—pretty enough for a party, yet so simple you can serve them to the family often

He-man Salad Bowl
Makes 6 to 8 servings

Cook . . . . . 3 ounces shell macaroni in boiling, salted water until tender; drain, and chill
Add . . . . . ¼ pound bologna, cubed
½ cup chopped celery
2 tablespoons minced onion
¼ cup sliced radishes
2 cups torn spinach leaves
Combine ¼ cup French dressing
¼ cup mayonnaise
¼ cup diced American cheese
Add to salad; toss lightly.
—*Dorothy Hofbauer, Nebraska*

Whipped Pear Salad
Makes 6 servings

Dissolve . . 1 package lime gelatine in 1½ cups boiling water
Add . . . . . ½ cup pear juice
½ teaspoon salt
1 teaspoon vinegar
Pour half of gelatine mixture into 1½-quart mold.
Let stand until set.
Chill remaining gelatine until it begins to thicken.
Beat until light and fluffy.
Add a little gelatine mixture to 2 3-ounce packages softened cream cheese
½ teaspoon vinegar
¼ teaspoon powdered ginger
Beat until smooth with rotary beater.
Fold in remaining whipped gelatine.
Stir in . . . 2½ cups (No. 2½ can) pears, diced
Pour over first layer in mold.
Chill until firm.
—*Mrs. W. C. Lungren, California*



Spring Salad Mold
Makes 4 servings

Dissolve . . 1 package lime gelatine in
1½ cups boiling water
Let stand until cool and slightly thickened.
Fold in . . 1 cup finely shredded lettuce
1 teaspoon minced onion
½ cup finely chopped celery
¼ cup chopped green pepper
5 medium radishes, sliced
1 teaspoon salt
Pour into ring mold.
Chill until firm.
—*Mrs. Wade Lamkin, Indiana*

Strawberry Dessert Salad
Makes 6 servings

Melt . . . . . ¼ pound (16) marshmallows in top of double boiler with
2 tablespoons strawberry juice
Cool.
Add . . . . . 1 cup crushed strawberries
½ cup crushed pineapple, drained
Blend . . . . 1 3-ounce package cream cheese until creamy
Add . . . . . ½ cup salad dressing
½ cup heavy cream, whipped
Combine with strawberry mixture.
Pour into refrigerator tray.
Freeze until firm.
—*Mrs. Sam Chadwick, Nebraska*

Shrimp Salad Mold
Makes 6 servings

Dissolve . . 1 package lemon gelatine in
1 cup hot water
Add . . . . . ¾ cup cold water
3 tablespoons vinegar
½ cup chili sauce
Chill until mixture begins to thicken.
Add . . . . . ⅓ cup pickle relish
¼ cup grated onion
5-ounce can (1 cup) shrimp
¾ cup diced celery
¼ cup diced green pepper
Pour into 1-quart mold.
Chill until set.
—*Mrs. J. W. Frey, Kansas*

Top-of-range main dishes

These recipes will stand you in good stead all summer long when you need good, filling meals and it's too warm to turn on the oven

Spaghetti-Sausage Scramble
Makes 4 servings

Brown . . . 1 pound ground pork sausage in heavy skillet
Pour off all but 2 tablespoons fat.
Brown . . . 3-ounce can (½ cup) mushrooms in remaining fat
Add . . . . . ½ clove garlic, minced
½ cup chopped onion
Blend in 3 tablespoons flour
3 cups tomato sauce
Cook until thick.
Add . . . . . 1 tablespoon Worcestershire sauce
¾ teaspoon salt
⅛ teaspoon pepper
Simmer for 30 minutes.
Cook . . . . 7-ounce package spaghetti in boiling, salted water
Drain; serve meat over spaghetti.
—*Mrs. E. M. Riley, Missouri*

Pork Chops and Rice
Makes 6 servings

Dredge . . 6 1-inch-thick pork chops in
¼ cup flour
Melt . . . . 2 tablespoons shortening in large skillet
Brown chops on both sides.
Combine ¾ cup uncooked rice
3 cups tomato juice
3 tablespoons chopped onion
1½ teaspoons salt
¼ teaspoon pepper
Pour over chops.
Cover and simmer until rice is tender, about 60 minutes.
—*Mrs. L. W. Foubert, Iowa*

Two separate, complete ovens in this G-E "Speed Cooking" Range!

Do see this new G-E 2-oven beauty—and other worksaving "Speed Cooking" Ranges at your G-E retailer's. (Consult classified phone book for one nearest you.) General Electric Company, Louisville 2, Kentucky.

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Calrod® Units throughout! All the newest "Speed Cooking" features!

Yes! All the conveniences of TWO OVENS! This new G-E Range has one mammoth-sized oven, automatically controlled—another oven, medium-sized.

Both are fully equipped with famous Calrod Units!

- You can broil or roast in one oven, bake in the other at the same time, with full oven capacity.
- Gives you lots of extra room on "baking day"—saves time, too!
- Great for big families, company dinners. Everything ready without waiting!

Prices and specifications subject to change without notice.

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(National Average rates.)

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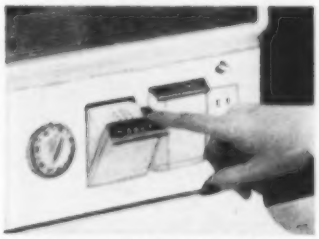
SO CLEAN – SO FAST – MAKES MARVELOUS MEALS SO EASY TO GET!

Watches over meals! Automatic Oven Timer lets your dinner cook while you visit, shop, or clean house. Simply put your meal in the oven, set a simple "clock." The oven goes ON and OFF automatically. Dinner's ready when you are!

So simple! Just push a button—for the heat you want, from warm to speed-high. Tel-A-Cook Lights—a different color for each button—tell you exactly which unit is on—and at what cooking heat. Wonderful results are easy!



Salt always pours! G.E.'s Salt Conditioner keeps salt at pouring temperatures, even in dampest weather. No more sticky lumps to annoy you. The salt is ready to use the instant you need it. Another time-saving G-E feature you'll love!

GENERAL ELECTRIC

TOPS IN TOOLS

"Kelly Perfect"

WEED CUTTER

Examine the *blade*, and you'll see why this is the ideal tool for cutting heavy, tough weeds! Because of its elliptical shape, it gathers and holds the weeds—while the deep, razor-sharp serrations cut the toughest material faster, cleaner. The blade is forged from high carbon, scythe-grade steel—fully heat treated and tempered. It's easily removed for sharpening.

See and buy the "Kelly Perfect" at your hometown hardware store. The minute you swing this perfectly-balanced tool, you'll agree it's the finest weed cutter ever made! True Temper Corp., Cleveland 15, Ohio.

TRUE TEMPER *Corporation*

FOR OVER 100 YEARS MAKERS OF FINE TOOLS, FISHING RODS, GOLF SHAFTS

The right way to treat wounds

By Dr. J. W. Bailey, D.V.M.

Among livestock owners, questions on how to treat a wound pop up quite often. Telling them to get a veterinarian isn't a fair answer, for they generally will get one anyway if the injury is bad enough. However, many cuts are small and do not warrant the expense of a veterinarian.

An understanding of wound treatment by livestock owners will benefit both them and their veterinarian. If injuries are bad, a working knowledge of proper procedure may save an animal from bleeding to death before a veterinarian can get to the farm.

Wound treatment is covered by these steps: (1) getting bleeding stopped, (2) preventing infection, (3) promoting healing with a minimum of scar-tissue formation.

Severe bleeding results from severed arteries or veins. When arteries are cut, the blood is bright red and spurts out according to the heartbeat. Blood from veins is darker and flows in a steady stream with little force. In either case, bleeding is most effectively stopped by locating the severed vessel and tying the end with a strong thread. A pair of forceps, pliers, or even the fingers may be used to pick up and hold the injured vessel for tying. In event of small, deep wounds, the edges of a cut can be pinched together or closed by pressure. We know

[*Turn to page 58*

Photographs: Author

Stop bleeding by applying a tourniquet. Or, locate severed vessel and tie end with strong string. Use pliers to hold the vessel

Clean wounds with hydrogen peroxide. Its "boiling" action carries out dirt particles which might be sealed in the wound

Combat infection with drugs and compounds recommended for that use. Ointments used in treating mastitis are good

Cover wounds with a strainer pad or gauze pack. Hold cover in place with tape. Close wounds with stitches and metal clip

HOW TO CHOOSE WARM AIR HEATING

that you're sure will serve you best

1. Choose for quality construction

In their jackets, most furnaces look pretty much alike. It's hard to judge their quality. But you can be *sure* of quality if you choose equipment that bears the American-Standard name.

2. Choose for heating efficiency

Depending on its size, location, window area and other factors, your home has its own *individual* heating requirements. The variety of units for all fuels in the extensive American-Standard line assures that you can meet these needs exactly.

3. Choose for fuel economy

The *right* warm air unit can save you enough money on fuel to help you pay for the whole new heating system in a few winters. American-Standard equipment is famous for combining top heating efficiency with fuel economy.

4. Choose for installation and service

American-Standard equipment is engineered for easy installation . . . and for easy accessibility if service is ever needed. Your American-Standard retailer will help you select the proper unit. He'll install it, and service it if necessary.

5. Choose for reasonable cost

Remember that in heating equipment, "reasonable cost" means operating and maintenance cost as well as first cost. That's why American-Standard equipment is truly a bargain. And you can buy it on the most liberal time payments!

American Radiator & Standard Sanitary Corporation

THIS WINTER AIR CONDITIONER, the oil fired Winterglo, requiring only slightly more than four square feet of floor space, is ideal for utility room or alcove installation. High in efficiency, low in cost. One of the many American-Standard heating units for all types of fuel.

PHONE FOR FREE ESTIMATE! Under the heading "Furnaces" in the Yellow Pages of your phone book, look up the name of your local American-Standard retailer. Phone him, and he'll tell you how quickly and inexpensively you can modernize your heating system right now . . . and pay for it in easy installments.

SEND COUPON FOR FREE BOOKLET ON WARM AIR HEATING [PLEASE PRINT]

American-Standard
Dept. WS-62, Pittsburgh 30, Pa.

Please send me your free WARM AIR HEATING BOOK.

I am modernizing_____ Building new home_____

Name_____

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City & County_____ State_____

If you live in Canada send to: Standard Sanitary & Dominion Radiator, Ltd., Box 39, Station D, Toronto

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Take it from Clare Van Voorhis, prominent heating and plumbing contractor, 120 Kellogg Avenue, Ames, Iowa. Mr. Van Voorhis further states: "My customers want a water heater that will give them abundant hot water with trouble-free performance. That's what they get with C-E HEATMASTER fully automatic water heaters. And that's why I know I've got another satisfied customer when I install a HEATMASTER."

Available in all models and sizes, both gas and electric

Electric—Approved and listed by Underwriters' Laboratories, Inc.

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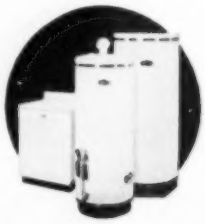
Heatmaster®

AUTOMATIC WATER HEATERS

Water Heater and Soil Pipe Division



COMBUSTION ENGINEERING-SUPERHEATER, INC., P. O. Box 1749, Chattanooga 1, Tenn.

The right way to treat wounds

[*From page 56*]

Bandage foot wounds to keep out dirt which may cause infection. Strip of inner tube can be used to hold bandage in place

Sulfa drugs, given orally, help stock fight both internal, external infection. Or, powder can be placed directly on the wound

of one farmer who saved a horse by using a strainer pad to plug up a puncture wound caused by a sharp stick.

When wounds are on the legs, a tourniquet can sometimes be used to stop bleeding. A tourniquet is no more than a rope or cloth tightly tied or twisted around the limb to stop the blood circulation. If an artery is cut, the tourniquet is tied above the wound, as this type of vessel carries blood away from the heart. Bleeding from a vein calls for a tourniquet below the wound, as the blood is returning to the heart. A tourniquet must be loosened a few minutes every hour, or a complete lack of blood in the area may cause gangrene. Bleeding from small wounds can sometimes be stopped by pressing with sterile cotton or gauze for a few minutes. Don't use flour, cobwebs, dust, and similar materials to stop bleeding.

All wounds should be thoroughly cleaned after bleeding stops. This is best done with cotton and a mild disinfectant solution such as boric acid. Carefully dry wounds after cleaning, as water has a tendency to retard healing and cause the formation of "proud flesh." Hydrogen of peroxide is useful for cleaning deep cuts, as its "boiling" action helps carry out particles of dirt which might otherwise be sealed into the wound.

Various drugs and compounds are recommended to combat infection, but one of the best is the penicillin ointment

in tubes used for treating mastitis. This can be applied daily with no danger. Harsh disinfectants, such as iodine and strong coal-tar disinfectants, should not be used, as they often destroy body tissues.

Bringing wound edges together and fastening them will help insure healing and will leave little in the way of a scar. However, the location of a cut often makes such treatment impractical, especially when it is around a joint or in a place where there is considerable movement. Whenever practical, bring wound edges together with a needle and strong thread. Small metal clips also can be used to close wounds. Minor wounds can sometimes be closed and held in place with strips of adhesive tape.

It usually is advisable to bandage wounds lightly for protection against dirt which may cause infection. This is particularly true of foot wounds. Body wounds can't always be wrapped, but sometimes have to be covered with a gauze pack held in place by strips of adhesive tape. When bandages won't stay in place, a daily coating with flexible collodion will help seal wounds against contamination.

Regardless of other agents used, in hot weather it is desirable to swab wounds with something which will repel flies and prevent infestation with maggots. Iodoform and pine tar both are old favorites for this purpose. Smear 62 and the newer EQ335 also are effective fly repellents. Apply these materials every 2 or 3 days until healing is complete. **END**

Anthrax

[*From page 13*]

should change all animals to clean pastures. Don't move livestock into or out of the infected area. The disease is easily spread by animals and man. Anthrax contaminates the soil for a long time.

There are a number of biological products available for fighting anthrax. These products have three general uses: immunize against the disease, protect animals from outbreaks, and treat sick animals. Your veterinarian or livestock official can best determine which of the products should be used.

The anthrax-spore vaccines are used every year in some areas of the country before the anthrax season begins. These vaccines are made up of living spores that have been weakened. They do not ordinarily cause the disease, but they do immunize the animal.

Anthrax-spore vaccines can be used alone or with antianthrax serum. One vaccination per season usually is enough. However, in badly infected areas a second vaccination may be necessary.

Antianthrax serum gives protection as soon as absorbed, but the immunity is only temporary. The serum can be used for quick immunity against outbreaks and in the treatment of sick animals. Anthrax bacterin is made up of dead organisms, so it cannot cause the disease. It brings on the growth of immune bodies but isn't always as effective as spore vaccine.

Don't take chances with anthrax. If you suspect the presence of the disease in your animals, take the precautions mentioned in this article immediately. Don't try "home remedies" against this disease. The disease will beat you every time unless you get skilled help. **END**

Take your choice

Serious depreciation of your property's value—plus big repair bills...

or

A planned program of protection NOW...to Safeguard your farm, your livestock...your equipment...your stored crops

Neglected precautionary measures and neglected repairs are sure to set up a chain reaction of needlessly heavy maintenance costs, and cause permanent damage that lowers the value of your property investment.

Neglected roofing and siding . . . improper insulation of barns, storage houses . . . unprotected wood . . . destructive insects—all these take their toll in damage to livestock and stored crops, needless deterioration of equipment.

It makes good business sense to follow this simple Barrett farm plan

1. Make needed repairs *now*.
2. Take all precautionary measures *now*, with Barrett protective products.
3. Start looking ahead—*now*. Set up your own farm-protection savings account at your bank. When an emergency arises, you'll be ready to meet it.
4. If you prefer to budget payments covering necessary repairs, consult your local bank for financing plan. It will be more economical in the long run.

Let These Barrett Products Help You Protect Your Farm Investment

- *Asphalt Roofing Shingles*
- *Mineral-Surfaced Asphalt Roofings (in rolls)*
- *Mineral-Surfaced Sidings*
- *Insulated Sidings*
- *Smooth-Surfaced Asphalt Roofings (in rolls)*
- *Rock Wool Insulation*
- *Sheathings and Building Papers*
- *Roof Cements and Coatings*
- *Protective Bituminous Base Paints*
- *Damp-proof Coatings*
- *Wood Preservatives*
- *Fertilizers*

Free **Send for BARRETT'S "FARM AID" book.** This book gives detailed information on roof repairs, re-roofing, re-siding, insulation, protecting wood, farm equipment, etc.

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Please send me your free FARM AID book.

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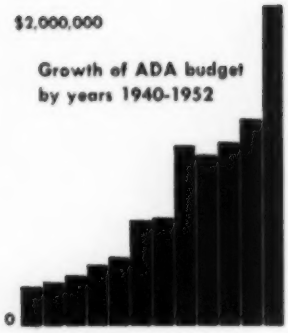
A REPORT TO YOU



It's your ADA . . . it's an idea at work: the idea of America's dairy farmers joining to *do together* in nationwide advertising what no one farmer, plant or state can do alone in advancing greater public use of dairy foods and better public understanding of the economic importance of dairying. As an individual dairy farmer, you produce. Joined with other millions of dairy farmers through your ADA, you help sell your milk and cream production.

Your representatives in action at a typical ADA meeting. ADA is not only farmer-financed but farmer-controlled, with co-operation from all the industry.

Your ADA at work in advertising. This Cheese Festival ad is the spearhead for an annual promotion worth a million dollars to the cheese industry, on an ADA expenditure of less than $100,000.

How ADA has grown. The American Dairy Association had its beginning in 1940, with dairymen from six states represented. Its sound principles and successful operation have spurred a growth unprecedented in the history of association efforts. Today, 40 states are members of ADA. Income has grown from $271,000 in 1940 to $2,006,000 in 1952 for promotion and sale of dairy foods.

Your part in ADA. On a voluntary basis in most states, by legislation in a few, dairy farmers during a given period of the year set aside one cent per pound of butterfat or the equivalent in milk. These advertising funds set aside once a year provide for a full year of advertising promotion keyed to sales. This is your program supported by your set-aside in your state.

How ADA is managed. A small managerial group maintains the Chicago headquarters; they are ADA's only paid employees. All other officials are elected by the state organizations, and these official representatives in turn elect a president and board of directors and appoint various committees. All officers, directors and committeemen serve without pay.

ADA's program. Four types of activity—advertising, merchandising, research, and publicity—are carried on by ADA to improve the standards of the dairy industry and to promote the sale of dairy products. ADA works in close co-operation with all branches of the dairy industry.

ADA results. Continuous advertising, plus merchandising events, have built up a proved record of results: greater sales and better income for the producers of the nation's milk and cream. The record shows $12 worth of results for every $1 invested. ADA assures and insures future growth and prosperity for dairy farming.

Support your ADA Set-Aside . . .

on the progress of your American Dairy Association

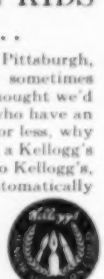
Ads like these help insure profitable markets for you and all of America's dairy farmers

● Through your ADA, dairy farmers invest in year-round advertising like this for milk, butter, cheese, cream, evaporated milk, ice cream, dry milk—in leading magazines and newspapers.

for Year 'round ADA Advertising!

KELLOGG'S INVITES THE KIDS TO MAKE THE ADS...

This ad was written by Bonnie Stanton, age 13, of Pittsburgh, Pa. That's her picture. We feel that people sometimes get tired of ads done by regular writers. So we thought we'd get our ads from the youngsters in this country who have an urge to write and draw. If you are 14 years old, or less, why not get out your colors and send in an ad now? Put a Kellogg's Corn Flakes box top with your entry and mail it to Kellogg's, Box 300, Battle Creek, Michigan. Your ad will automatically make you a member of *Kellogg's Junior Admakers Guild*, and we'll send you a swell pin to wear. Then, if we use your ad in a magazine or over the air, Kellogg's will send you a $100 U. S. Savings Bond. Why not send us an ad today? See simple rules for entries on Kellogg's Corn Flakes package or write Kellogg's for them.



Every entrant gets this pin

WHO DO YOU KNOW... THAT DOESN'T LIKE KELLOGG'S CORN FLAKES? or WHOM do you know?

Have a jam session

There's nothing as satisfying this time of year as still-warm jars of jam lining your kitchen shelves and the fragrance of more jam bubbling on the stove

You just can't beat the feeling of satisfaction you get from a shelf full of amber and rose-colored glasses of jam. The extra work it takes right now will be well rewarded next winter when you bite into hot, buttery toast topped with your favorite jam.

Choose well-ripened, sound fruits and berries of the best flavor and color. Wash the fruit and discard any that is spoiled. Remove stem and blossom part.

Use a 4-quart or 6-quart kettle, one with a wide bottom if possible. There should be plenty of room for the jam to come to a full, rolling boil.

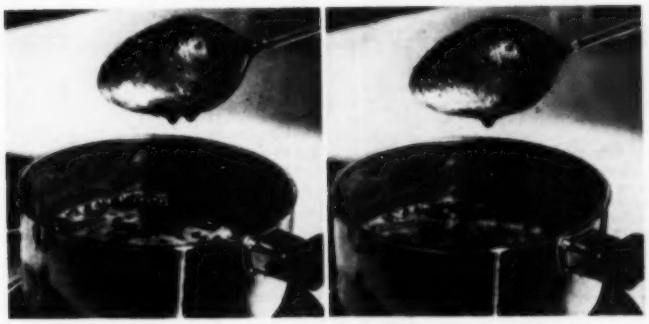
Store jams and jellies in a cool, dry place. Dry storage is essential.

Blueberry and Raspberry Jam

Makes eleven 6-ounce glasses

Wash and crush:
1 quart blueberries
1 quart red raspberries
Combine and measure out 4 cups of fruit; fill last cup with water if necessary.
Add . . . . **7 cups sugar**
Mix well.
Heat to full rolling boil.
Boil hard 1 minute, stirring constantly.
Remove from heat.
Stir in . . . **½ bottle fruit pectin**
Skim.
Seal with paraffin in hot, sterilized glasses immediately.

More recipes on page 64



To be sure jam is done, dip metal spoon into boiling jam. When two thick, heavy drops run together into one off side of spoon, jam is done. Stir jam while cooking, but stir slowly to keep from getting air bubbles

Pour jam into hot, sterilized glasses. Pour melted paraffin onto a clean, metal spoon, letting it overflow onto the surface of the jam. The first paraffin layer should be ⅛ inch thick. When the paraffin is fully set, prick the air bubbles for a good seal

Pour another ⅛-inch layer of paraffin over the first layer. Tip the glass slightly to seal the edges. The double seal prevents breaking or leaking. When cool, cover glasses with tin covers to keep paraffin clean. Wash the glasses, and label them

Traditional Treat, America's Favorite—Good Old-Fashioned *Biscuit*-Type Strawberry Shortcakes! Heap high your version of grandma's prize dessert with juicy-sweet berries and whipped cream. And, as three generations of good cooks have done, depend on CALUMET Baking Powder to make your biscuit shortcakes luxuriously light.

CALUMET'S FAMOUS RECIPE FOR

Old-Fashioned STRAWBERRY SHORTCAKES

3 cups sifted flour
3½ teaspoons Calumet Baking Powder
3 tablespoons sugar
1 teaspoon salt
½ cup shortening
1 cup milk (about)
1 cup heavy cream, whipped
2 quarts fresh strawberries, sliced and sweetened, or 3 boxes Birds Eye Frozen Strawberries

Note: To assure the lightest, tenderest shortcakes ever, use only CALUMET—the Baking Powder three generations of good cooks have counted on when making America's favorite home-baked treats. Double-Acting, Double-DEPENDABLE CALUMET guards against baking failure in shortcakes, biscuits, cakes, coffee cakes, muffins, waffles and other baked treats . . . giving exactly the right amount of leavening both in the mixing bowl *and* in the oven's heat. No wonder more published recipes call for CALUMET than any other baking powder. No wonder more than *twice* as many women use CALUMET as any other brand!

Method: Sift together flour, CALUMET Baking Powder, sugar, and salt. Cut in shortening until consistency of coarse cornmeal. Add milk all at once and stir until soft dough is formed. Turn out on lightly floured board and knead 20 times.

Roll ¼ inch thick and cut with floured 3-inch biscuit cutter. Place half of circles on ungreased baking sheet and brush with melted butter. Top with remaining circles. Bake in hot oven (450°F.) 15 minutes, or until done. Separate halves of shortcakes and spread with softened butter. Put together with whipped cream and strawberries between halves and on top. Makes 8 shortcakes.

FAMILY STYLE SHORTCAKE

Prepare dough as directed above. Divide dough in half and pat ½ inch thick in two greased 9-inch layer pans. Bake in hot oven (450°F.) 20 minutes, or until done. Spread shortcakes with softened butter. Then put together with whipped cream and strawberries between layers and on top. Makes 6 to 8 servings.

A Product of General Foods

CALUMET BAKING POWDER
DOUBLE-ACTING

Have a jam session

[*From page 63*]

Carrot-Orange Jam

Makes four 8-ounce glasses

Cook . . . **2 cups carrots** in boiling water until tender
Drain and put through meat grinder with
2 lemons
1 orange
Add . . . **4 cups sugar**
Mix well.
Cook slowly over low heat, stirring often to prevent sticking, about 45 minutes or until mixture thickens.
Pack in hot, sterilized glasses; seal. If desired, squeeze juice from lemons and orange, then put peel through grinder and add juices separately.
—*Frances J. Leuden, California*

1-2-3 Jam

Makes three 8-ounce glasses

Combine **1 cup rhubarb,** diced
2 cups strawberries, washed and hulled
3 cups sugar
Cook 20 minutes after mixture starts to boil.
Pack in hot, sterilized glasses.
Seal with paraffin.
—*Mrs. Lester Shuttleworth, Ohio*

Strawberry Jam

Makes four 6-ounce glasses

Let stand overnight:
4 cups strawberries, washed and hulled
2 cups sugar
Boil for 10 minutes.
Add . . . **2 cups sugar**
Boil 5 minutes.
Set in shallow pan; stir often all day.
Pack the next morning in hot, sterilized jars; seal.
—*Mrs. Cletus Calder, Iowa*

Raspberry-Rhubarb Jam

Makes five 8-ounce glasses

Combine **1 cup red** or **black raspberries,** washed and hulled
4 cups diced rhubarb
5 cups sugar
Boil until thick, about 20 minutes.
Seal in hot, sterilized glasses.
—*Miss Lola Neeley, Missouri*

Red Cherry Jam

Makes eleven 6-ounce glasses

Pit . . . . . **2 pounds fully ripe cherries**
Add . . . . **¼ cup water**
Heat to boiling; cover and simmer 15 minutes.
Measure 3½ cups of fruit mixture, using water if necessary to complete measure.
Add . . . . **1½ cups canned pineapple,** spoon-sized cubes
7 cups sugar
Mix well.
Heat to full rolling boil, stirring constantly.
Boil for 3 minutes.
Remove from heat.
Stir in . . **1 bottle fruit pectin**
Skim and stir 5 minutes to prevent floating fruit.
Seal in hot, sterilized glasses.

Your refrigerator

[*From page 41*]

Whether or not you can fast-freeze foods in your refrigerator depends on temperature, too, of course. If the normal operating temperature is 15 degrees or lower, small amounts of food probably can be frozen successfully. (Follow manufacturer's suggestions on this.) Foods frozen slowly—as they will be at temperatures higher than 15 degrees—cannot be expected to compare in quality to quick-frozen ones. (Turning the control dial to a colder setting may freeze the food a little faster—but in most refrigerators, the dial can't be left on cold setting very long without damaging foods in the general storage area.)

Foods to be frozen or stored in the freezing compartment of your refrigerator should be packaged in special materials. Unwrapped or poorly packaged foods will get dry and tough, losing flavor.

Do you expect to freeze homemade ice cream—or to hold "store-bought" ice cream without softening? Some refrigerators do this on "normal" setting. Others must have the control turned to a colder setting and can be used just for *temporary* holding of frozen desserts.

Frozen foods won't stay "home-freezer good" if they often warm up to near thawing, then refreeze. If you intend to use your freezing compartment as a home freezer, be sure you have the kind that seldom requires defrosting, or one that takes care of defrosting without this damaging effect on stored foods.

Each manufacturer puts out an array of refrigerators. They may look alike, and even have the same brand name. But in their ability to store frozen foods or to freeze foods there's this big difference. How can you know which is which?

Ask for thorough explanations and demonstrations from salespeople. Read the owner's instruction manuals of the various models; find out what the manufacturer has intended them to do.

Most freezing compartments that give home-freezer performance are completely insulated from the rest of the cabinet. Though the freezing unit does not always have a separate outside door, it has a well-insulated closure, and one that has a gasket to insure a good seal. The refrigerator with a true "freezer" compartment usually has a separate refrigerating system operated by a separate control.

> **He that goes a great way for a wife is either cheated or means to cheat.**
>
> —*Thomas Fuller*

Refrigerator freezing compartments with higher temperatures still serve very well—in the uses for which they were intended: for freezing ice cubes and for *short-time* storage of frozen foods and ice cream. It's up to you to choose the one best suited to your needs.

There's more than meets the eye to using the *general storage area* of your refrigerator, too. Read your owner's instructions to be sure you understand what your refrigerator is supposed to do—and what you *should not* ask it to do.

You may be surprised to find out what a good job your refrigerator can do with the full cooperation of its user! **END**

Imagine all that, and you *still* haven't imagined *half* the features of the wonderful, new Caloric Gas Range. Here's freedom from meal-getting chores such as you've never known. Here's beauty that will grace the finest kitchen, plus efficiency that will *outperform* any other range, using *any* fuel.

See a complete Caloric demonstration, today. Our dealers are listed under 'Caloric" in your classified telephone book.

(All models are available for "Pyrofax" Bottled Gas or other LP Gases.)

CALORIC STOVE CORPORATION, TOPTON, PA.

Ultramatic Caloric

AMERICA'S EASIEST RANGES TO KEEP CLEAN

There's Still Time To Enter This Easy

$20,000 "Room-for-Improvement" CONTEST

HERE's your chance to win big cash prizes and also get free plans for remodeling your home drawn by one of the leading architects in your community. Nothing to buy, no labels to send. All you do is complete two simple statements telling (1) *Why and how you'd like to remodel your home*; (2) *Why you think plywood is the best material to use for your remodeling* . . . and make a rough "before and after" floor plan to help explain your ideas.

It's easy to enter; fun, too! You don't have to be an artist. Anyone can win, based upon the two simple statements. Your improvements can be any size, any kind . . . complete addition or attic bedroom. All entries must be on official entry blank * so mail coupon below and enter this exciting contest.

*Entry blank contains official rules, lists all prizes.

46 CASH PRIZES

4 FIRST PRIZES 4 SECOND PRIZES

All first and second prize winners also get free home remodeling plans drawn by leading architects.

Special Division for Farm Homes

Mail Coupon for Official Entry Blank

HURRY! Contest Closes June 30, 1952

ROOM-FOR-IMPROVEMENT CONTEST
Dept. 226, Douglas Fir Plywood Association
Box 1334, Tacoma 1, Washington
Please send free official entry blank. Also send free building and remodeling idea folder. (Good USA only)

Name.....

Street or RFD.....

City..... Zone.... State.....

YOUTH GOES ON RECORD

Self-confidence

Some of the panel members test Judy Keller's home-baked bread which won her a trip to the National 4-H Congress last year. Left to right: David Meyer, Elaine Balch, Andrea Elfmann, Judy, Jerome Gernes, Mary Ann Papenfuss, Cornelia Gernes. Members not pictured: Norbert Gernes, Loretta Schmidt, Carol Papenfuss, Louise and Virginia Oech

By Betty Camp

One of the *toughest* battles most young people face is getting up before an audience—especially for the first time. The mere thought of giving a speech before your class, demonstrating a 4-H project at the fair, or performing in some way seems to make your heart beat faster. It's hard to get your breath, your hands won't behave, and a very real fear grips you.

Why do it, then? Is it worth the struggle? If it is, are there some "magic" things to do which will make the job easier?

Since their Club was organized eight years ago, the 4-H Fireflies of Winona County, Minnesota, have had varied experiences fighting the jitters before audiences. One requirement for membership is to conduct a 4-H demonstration before the Club, and most of the members go on to demonstrate at Achievement Days, county and state fairs.

The 52 members gave a total of 90 demonstrations last year, and one of their seven-year members, Judith Keller, won a trip to the National 4-H Congress with her bread-baking demonstration. She gave it in Chicago before a large audience of 4-H'ers and adults.

In this month's panel, these boys and girls tell you some of their ideas and tips which have helped them gain confidence before an audience.

Judith: About four years after I joined 4-H, I did my first bread-baking demonstration at our local Achievement Day. Then I repeated it at the county fair, and at the state fair. Last year my state demonstration won a trip to the National Congress. All these demonstrations were silent. It's much easier for me to work with my hands and make the bread dough behave if I don't have to talk. A silent demonstration is a good way for *any* beginner to get started.

I think demonstration work is something *everyone* should do. It gives you a chance to meet new people and find out what they're doing, and it's much easier to get up in front of your class at school after you've done some demonstration work.

Cornelia: Radio speaking has helped me conquer stage fright. In 1950 I won the district championship, but I remember the first speech I tried to make. I was so nervous I couldn't do a thing! You'll find it's easier to get up in front of a mike if you know your speech almost backwards and have it timed. You pick up a lot by just watching others, too.

Elaine: I think giving project talks in Club meetings is the best way to get started speaking before people. The audience is small and they're your friends. You acquire confidence before you face a large group of strangers.

Norbert: That's crazy! I'd a lot rather talk before a big group of strangers than in front of people you know—especially your parents, because you think they're

[*Turn to page 68*

NOW! Mobiloil's New Super-Detergent Formula Assures —

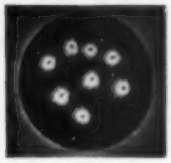
LESS ENGINE WEAR

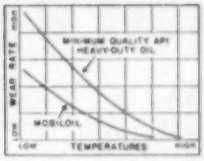
Amazing new combination of ingredients helps give longer engine life—drastically reduces engine wear during periods when most wear occurs, during starts, warm-ups and stop-go driving! Less engine wear means less oil used between oil changes, as your oil bayonet will show!

More than ever, New Mobiloil assures you triple action that gives minimum wear, top protection against deposits and corrosion, peak operating economy!

LESS OIL CONSUMED

PROVED IN SENSATIONAL NEW RADIO-ACTIVE TRACER TESTS!





USE of radio-active tracers from the Oak Ridge atomic pile—a startling new and reliable method—measures the wear-reducing qualities of New Mobiloil with new super-detergent formula.

Radio-active piston rings are installed in test engines. "Hot" metal particles, worn off the rings into the motor oil, are then measured by Geiger counters and electronic recording machines. Chart at right shows result—an almost unbelievable cut in costly engine wear!

Mobilgas
SOCONY-VACUUM

NEW Mobiloil

SOCONY-VACUUM OIL CO., INC., 26 Broadway, New York 4, N. Y., and Affiliates: MAGNOLIA PETROLEUM CO., Dallas, GENERAL PETROLEUM CORP., Los Angeles.

Amazing Comfort

Sensational New Design Makes WOLVERINES More Comfortable Than Ever!

SAME WOLVERINE Shell Horsehide

Same Exclusive Wolverine Triple-Tanning Process . . . Same Dry-Soft, Stay-Soft Pliability . . . Same Money-Saving Toughness and Extra Wear PLUS a New High in Comfort!

Wolverine's master shoemakers have done it again! They couldn't improve on shell horsehide leather nor their own exclusive secret triple-tanning process. So they turned to design and came up with an improvement in fit and added comfort that you can only appreciate by sampling it. So, do just that. See your friendly Wolverine dealer and try on a pair of *Wolverine Shell Horsehides* with the revolutionary contour-back.

WOLVERINE SHOE & TANNING CORP.
Rockford, Michigan

FREE!

Indian-Tan Shoe Laces!

FREE? Yes, *REALLY* Free! Your dealer will see that you get a pair of 36" Indian-Tan Leather Shoe Laces FREE after you give him the coupon and inspect or try on a pair of Wolverine Shell Horsehides with the new contour-back.

TO ALL WOLVERINE DEALERS:
Bearer is entitled to one FREE pair of 36" Indian-Tan Leather Shoe Laces after inspecting or trying on a pair of Wolverine Shell Horsehides with the new contour-back.

Name _____
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Self-confidence

[*From page 66*]

going to laugh at you or worry that you won't make it through.

David: Yes, parents know what's going to happen before you do it. Strangers are more interested in what you're *saying* and *doing*, and I need an interested audience before I can get enthusiastic over something.

Jerome: Once you give a demonstration before your Club, though, you get courage to give one before your parents and other people.

Loretta: Nobody's going to laugh at you in Club meeting. We all know we'll be demonstrating sometime ourselves.

Andrea: I think one of the things we do which helps all of us gain confidence is our play and music festival. We put it on every spring in the Wilson Town Hall to earn money, and almost all the members take some part in it. We give two performances and fill the hall both times. Practicing and planning for it are fun, and you learn how to work together. Last year we had one main play and a smaller one. Then, between acts we had musical numbers.

Cornelia: Another thing that gives a girl confidence and poise is modeling in one of the 4-H style shows. I've taken clothing as a project for eight years, and last year I modeled homemade accessories at the state fair. Also, I picked that as my topic for demonstration at the Achievement Day. Then I went to the county fair and won a trip to the state fair.

Everyone has to model the clothes she makes in the county and state contests. Your clothing is judged on the way it fits, the style, if it is appropriate for your age and coloring, and whether accessories blend with the outfit. At the state fair a professional model showed us how to walk, turn, and how to show our dresses to best advantage; but the main point stressed was to act natural. I wasn't as nervous at the state contest as I was at Achievement Day.

Mary Ann: Anything like that is easier once you've gone through it. I showed a calf at the county fair and won a blue ribbon. I felt much better after it was over, and I don't think it will be so hard next time. I'm more at ease in front of people, too.

What does it take to put a demonstration across?

Jerome: I've done some soil demonstration work at the fair. You try to sell people on why they should adopt soil-saving practices and how to improve crops. To get it across, you have to know your stuff, because they have an open question period after it's over and some of the questions are tricky. I think a lot depends on organizing your speech beforehand. You've got to have an introduction which gets them excited in what you're going to say. Then follow a logical outline and sum it up in the conclusion. Try to give them something they will remember.

Elaine: Organization is the most important thing. For instance, in a cooking demonstration, you follow the logical steps of the recipe and usually explain each one as you do it. Before you start, you should explain what you will make or do. In clothing, you lay out the pattern and follow that through. You assume

that your audience knows *nothing* about your subject. Otherwise, you may leave out a lot of important things the audience knows nothing about.

David: A lot of persons try to cover too much ground in their demonstrations. It's much better if you can become an authority on just one part. Like in the tractor-maintenance demonstration I did at the fair, I took just the spark plug. You show how to tell if it's broken before taking it out, how to clean and set it.

Virginia: That's good—start with a simple subject or a phase—such as level measurements in cooking, or washing dishes, or setting tables. Later you can go on to something more complicated.

Carol: I think if you practice your demonstration over and over before you give it, it's much easier and you're not so afraid. Before I demonstrated a graham-cracker pie, I made pies till the family was sick of them.

Norbert: In winning the champion grain exhibit at the county fair, I demonstrated grain cleaning before a group of farmers. Then the grain was judged on quality and on freedom from weeds and chaff. That's a matter of practicing, too.

Louise: I've gotten interested in safety, and actually, you don't demonstrate much with that. You have to get your point across by telling it. In one demonstration I did on household safety, I pointed out how accidents happen by giving examples, and told where to look for danger spots in a home. Another one was on luminous tape which reflects light in darkness. You put it on machinery and bicycles to make night driving safer.

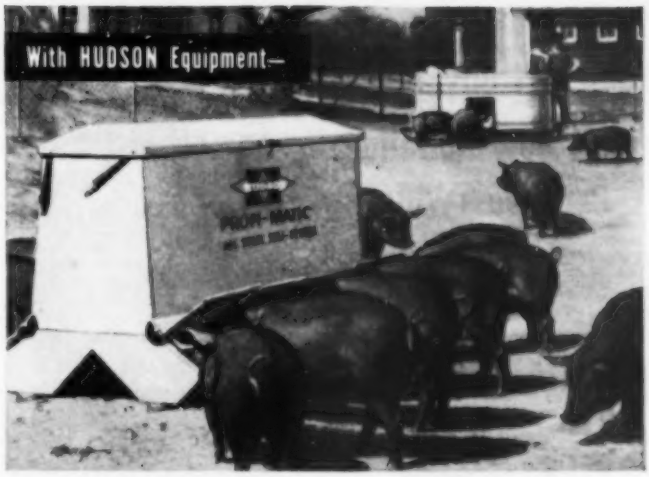
You can't always win. Do the members believe there is any value in contests if you don't carry off a blue ribbon?

Cornelia: For one thing, you learn to be a good sport if you lose. Hardly anyone wins the first time he tries, and most of the time you don't expect to win, anyway. You go into demonstration work to learn and to gain experience. Besides the friends you make on these trips, demonstrations develop leadership. And we *need* leaders today. People are willing to follow, but they don't want to go ahead on their own.

All the members agreed that, as with anything challenging, the rewards that come from demonstrating before an audience are more than worth the work and nervous strain which sometimes go with it. Why? For one thing, you broaden your horizons and make interesting new friends. Two, you develop greater self-confidence, poise, and a better-rounded personality. And three, you learn how to sell yourself and your ideas.

The members agreed that any public performance is easier if you organize your material carefully beforehand—then practice until all the steps are clearly set in your mind. As for your project, start with the very simplest of subjects—one on which you would like to become an authority. **END**

Each month Successful Farming will report an actual panel discussion of young people on the knotty questions and problems which confront today's farm youth. If you would like us to lead a discussion at a meeting of your youth group, write and tell us your question. We can't work in all your ideas, but we'll get around to many of them.—Editors



PRODUCE 100 LBS. OF PORK IN 1 HOUR OF FEEDING TIME INSTEAD OF 3

Cut Feed Costs 25% while putting on 20% more pork*

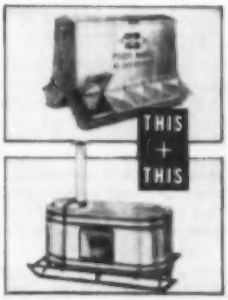
Well, let's look at the facts: Studies by a leading university† show that with *hand*-feeding and watering it takes an average of 3 hours of man labor to put on 100 pounds of pork . . . and with *self*-feeding and watering many farmers are doing the same job in ONE hour.

U.S.D. of A. says* that self-fed hogs put on 20% *more pork* with 25% *less feed*. Only with feed and water available 24 hours a day will hogs put on maximum gain. Self-feeding gets your hogs to market earlier for higher prices—while saving you time, work, and money.

And here's what it takes to do the job!

Check these Hudson All-Steel Self-Feeder features:

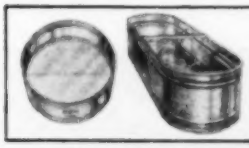
1. Super-Strong heavy gauge galvanized steel construction, fully top and corner-braced, with extra-heavy doors your hogs can't crush. 2. Sloping Sides—handle even ground feeds without clogging. 3. Rain and snow-proof doors keep moisture out. 4. Individual feed-flow regulators can be controlled from outside with hopper full or empty. 5. Separate compartments for different feeds. 6. Sizes: 4, 6, 10 and 14 door; 10, 15, 25, 35 bushels.



To put on more pounds *faster*, your hogs need plenty of fresh water. Hudson's Lo-Boy® Waterer gives you:

1. Large capacity tank saves filling time. 2. Ruggedly built of premium quality galvanized steel. 3. Sanitary construction . . . no open cracks for bacteria to hide. 4. Heavy angle-iron skids. (*Available with or without skids or heater.*) 5. Non-clog drinker valve inlet.

See Hudson Lo-Boy® at your dealer, soon.



HUDSON STOCK TANKS—Hudson Standard Stock Tanks are *full size* . . . built of premium quality, heavy gauge, galvanized steel. Seamless—no cracks *anywhere* in which bacteria can hide—easier to clean. Extra rigid with rolled in pipe-top and double Twin-Bead sides. Round end, round, shallow, and bottom-less types.

H. D. HUDSON MANUFACTURING COMPANY
589 E. Illinois Street, Chicago 11, Illinois

†Name furnished on request *U. S. D. A. Farmers' Bulletin No. 1866

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589 E. Illinois Street, Chicago 11, Illinois, Dept. SF-652
Please send FREE Livestock Equipment Catalog.

Name _____
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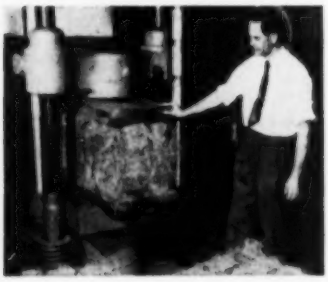
Town _____ State _____
My Regular Dealer is _____

You can't buy better than New Holland Certified Twine

This seal is your assurance of trouble-free baling

For your protection New Holland has commissioned the United States Testing Co., an independent testing laboratory, to keep continual check on the quality of their twine. That's why you won't find a stronger, easier-running, faster-knotting twine at any price. The New Holland Machine Co., a subsidiary of The Sperry Corporation,



At the U. S. Testing Co., a bale is crushed at 78,000 lbs. pressure to test New Holland twine and knot strength.

NEW HOLLAND

"First in Grassland Farming"

New Holland, Pa. • Minneapolis • Des Moines
Kansas City • Brantford, Ontario

Streamlined broiler production

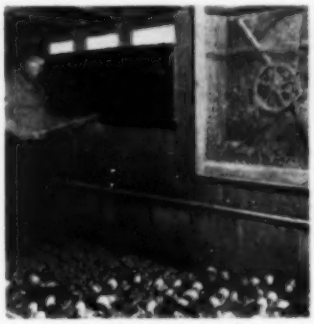
[*From page 38*]

visitors to view the inside of the building without entering. Few visitors are allowed to enter the broiler house. "No admittance" signs are put at entrances to keep out visitors who may carry poultry diseases into the pens. In front of the door to each wing of the building is a disinfectant foot pan which even the farm superintendent, W. A. Craig, steps into each time before entering the house.

A preventive drug is used to help control coccidiosis. All chicks are vaccinated for Newcastle. If any unusual disease symptom appears, the diseased birds are rushed to the poultry diagnostic laboratory at the State University.

Nerve center of the operation is the feed and control room. One man operates controls which supply water, feed, heat, ventilation, electricity, and music for the 20,000 birds. The birds make quite a racket when something goes wrong and especially if the lights are shut off for any reason. This happened once, and the auxiliary generator was running within three minutes. A small, utility farm tractor, parked right over the generator

[*Turn to page 72*



Tar paper covers windows to keep out direct sunlight while chicks grow pinfeathers. Ventilating fan helps keep the house dry

Disinfectant pans help control disease. All persons must disinfect boots before entering pens. A burlap bag holds moisture

Master control panel regulates heat, feed, water, lights, music. In case of power failure, red lights, buzzer warn of trouble

Angle-iron waterers get water from an overhead tank. Water runs constantly and drops into drain which empties in dry well

Routine checks are made for overcrowding and dead birds. Each wing holds about 10,000 birds. Diet floor is covered with 1½-inch layer of gravel and built-up layer of cobs

With a New Holland "77" you can package up to 10 tons of hay an hour in firm, nutritious bales.

"New Holland's "77" is tops in baling - gets the job done in a hurry!"

says A. G. Rolfe, Spring Valley Hereford Farm, Poolesville, Maryland

"We work 1100 acres on Spring Valley Hereford Farm," says Mr. Rolfe, "and about three-quarters of that acreage is in grass. We also carry over 500 head of Herefords, and that means a lot of hay to put up. So we really need a baler we can depend on. We have it in the New Holland "77".

Spring Valley Hereford Farm

"For my money, New Holland's "77" is tops in baling, and it certainly gets the job done in a hurry. Just start her up and she keeps on going field after field all day long. I know from experience the "77" puts up hay faster than most balers and I'm convinced it puts up better hay, too.

"I've used New Holland balers since 1940 with great success. I have nothing but praise for the new "77"."

If you put up hay, you ought to consider owning a New Holland "77". Here's why:

Faster Baling—With a "77", you can bale *up to 10 tons* of hay an hour at the rate of 7 bales a minute! No other baler works faster. Now it's possible to bale your hay the day it reaches peak quality—avoid damage by sun or rain.

Lower Maintenance—The simplified design and rugged steel construction of the "77" cut maintenance to a fraction. A survey of 500 "77" owners showed repairs and maintenance that averaged only $21.40 for an entire season. Some had none!

Higher Feed Value per Bale—Baling action on New Holland's "77" is gentle. Protein-bearing leaves and blossoms are kept in the bale—not shaken into the field. This means up to 50% more feed value for your stock.

More Experience—New Holland pioneered the automatic twine-tie baler. No other manufacturer has had as much or as long experience in this field. Today, New Holland is the leading manufacturer of automatic pick-up balers.

Better Service—New Holland dealers keep a complete inventory of spare parts on hand at all times to assure immediate replacement. Their servicemen are factory-trained for expert emergency field service and off-season overhaul.

New Holland Twine for top-capacity baling! New Holland Twine is fast-running, easy-knotting and strong. Because of its uniformly high quality, it has been awarded the U.S. Testing Company's Seal of Approval.

See your New Holland dealer soon for a complete outline of the "77's" outstanding features. And if you're in the market for a *wire-tie* baler, ask him about New Holland's Model "80". It gives you up to twice the capacity of other wire-tie balers now on the market. The New Holland Machine Co., a subsidiary of The Sperry Corporation.

NEW HOLLAND

"First in Grassland Farming"

New Holland, Pa. • Minneapolis • Des Moines
Kansas City • Brantford, Ontario

FREE Check catalog you wish and mail coupon to: New Holland Machine Co., 406 Pine St., New Holland, Pa.

- ☐ Twine-Tie Baler
- ☐ Wire-Tie Baler
- ☐ Forage Blower
- ☐ Baler Twine
- ☐ Forage Harvester—Row Crop or Hay Unit
- ☐ Baler Wire
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"LOOK AT THE EXTRAS you get when you heat with COAL the modern way!"

Take the modern space heaters! They'll give you 24 hours of steady, even, room-filling warmth *on a single filling of coal!* They're clean to operate and they burn coal so efficiently there are fewer ashes.

If you have a furnace, you can get a clock-controlled thermostat that will automatically turn up the heat in the morning—keep the house at *exactly* the temperature you like best, all day long—then close the drafts at night. And think of the work a modern stoker would save you by automatically feeding coal from bin to fire.

Coal gives you the steadiest, most comfortable, and in most places the most economical heat, no matter how it's burned. And up-to-date equipment will increase this economy by burning less coal and burning it more efficiently—will give you more comfort and a lot more convenience!

For information, ask your local coal dealer, or write to us at the Southern Building, Washington, D. C.

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7 good reasons why coal is the most popular fuel in up-to-date farm homes

1. Steadier warmth—no "on-again, off-again" flame!
2. Fewer "cold pockets"—fewer colds!
3. Automatic with stokers and controls!
4. Easiest and safest to store!
5. Lowest price almost everywhere!
6. America's vast reserves make supply dependable!
7. America's dependable supply assures price stability!

FOR ECONOMY AND DEPENDABILITY

YOU CAN COUNT ON COAL!

Broiler production

[*From page 70*]

in the control room, can be hooked up.

The correct amount of light is important in broiler production. Electric lights, on low drop cords, burn day and night during the winter when the birds are young. In summer, they burn only at night and on extremely dark days. The lights are turned on and off by an electric eye facing a southern exposure.

Too much light also can be harmful, especially when pinfeathers are starting on the birds. A chick sprouting pinfeathers, standing in the sun, is a natural target for picking. The windows are rigged with tar-paper covers to keep out the direct sun during this period.

Heat and ventilation also are handled from the control tower. Ceiling ventilation flues can be seen along the entire roof ridge. The flues are supplemented by exhaust fans and space heaters.

Four gas space heaters are suspended from the ceiling in each wing. Each heater is vented to carry off burned gases. Last winter, when the thermometer dropped to 17 degrees below zero, the broiler house stayed at 85 degrees.

The chickens get clean, fresh water. The water is electrically pumped from a well into an 800-gallon supply tank on stilts at the center of the building. The water flows through a standpipe and out into 60-foot sections of angle-iron troughs. Each wing has two sections.

The water runs constantly and flows into a protected drain which empties into a dry well. Again, electrical controls keep the tank pumped full.

The broilers get their feed the automatic way, too. A local elevator, using a formula developed at the Kenbroil Farm, mixes a commercial concentrate with locally grown corn, oats, and middlings to form a broiler starter and growing ration of high energy content. The feed contains antibiotics and a coccidiosis-control drug.

The feed is delivered to the farm in bulk delivery trucks and augered to the overhead feed-storage section. This section is built to support 30 tons of feed. The feed flows by gravity into the automatic chain-link feeder in the control room on the first floor. From here, the feed is distributed to the 1,400 feet of feeder trough, extending through the two broiler rooms.

The automatic feeder also is geared to a time control. For birds 5 weeks of age, it is set to run from 6 in the morning until 9 at night. The first run is for one-half hour, the others for 15 minutes out of the hour. For older birds, it runs at half-hour intervals from 5 in the morning until 10 at night and again at 1 a.m. The lights are on all night. However, the birds eat very little at night except when the feeder is running.

A special broiler strain of New Hampshire Reds is used—20,000 chicks each brood. Four broods are produced each year. The aim is to grow a 3-to-3½-pound bird in 10 weeks. A pound of broiler for each 3 pounds of feed is the goal. The last brood averaged 3.11.

It's mechanization, plus the latest know-how in broiler raising, that makes broilers profitable at the Kenbroil Farm. Although the setup is larger than most broiler plants, many of the ideas on feeding and management can be used successfully by smaller broiler producers. **END**

White sidewalls optional at extra cost.

MAYBE it is because farm folks like the wide open spaces, and don't like the kind of car that cramps them in—

Maybe it is because their menfolks know a good piece of machinery when they see one—

Or maybe it's just because they like to do things in style.

But for some reason or other—they certainly like the big, broad and beautiful Buick SUPER pictured here.

It has more usable interior room than any other six-passenger car in America, with the exception of Buick's ROADMASTER.

It has a wide-open view of the world—with Easy-Eye Glass† to absorb half the heat of the sun's rays and a lot of the glare.

It has a million dollars' worth of engineering and components to give it a smooth-gaited ride—which include such Buick features as coil springs on all four wheels—the firm keel of a torque-tube drive—and Hi-Poised engine mountings.

It has a gas-saving high-compression valve-in-head engine that is also a Fireball 8—and pours out a flood of power that shortens the miles and levels down the hills.

It has Dynaflow Drive* that lets you ride relaxed—protects everything from the engine to the differential and tires from the strains of driving.

And it has the smartest fabrics and interior trim that you've seen in many a year.

And we can add one other "maybe." Maybe farm folks have a high respect for a dollar and what it will buy.

In which case—size for size, power for power, pound for pound, feature for feature, you can put this SUPER against the field and find out it's a wonderful buy.

How about dropping in on your Buick dealer and putting one of these thrill-packed performers through its paces?

BUICK *Division of* GENERAL MOTORS

*Equipment, accessories, trim and models are subject to change without notice. Wheel crests standard on Roadmaster, optional at extra cost on other Series. †Optional at extra cost—available on most models. *Standard on Roadmaster, optional at extra cost on other Series.*

Sure is true for '52

When better automobiles are built

BUICK

will build them

THE RANGE THAT MAKES GOOD COOKS BETTER

1001 Cooking Speeds!

From simmer to sizzle — dial any heat you want — with this "Lectro-Host"

L & H Electric Range

Now you can cook the clean, modern, electric way, without being tied down to just five or seven cooking speeds!

The Vari-speed controls on this deluxe L&H range work like the volume control on your radio, give you any number of heat levels — a thousand, or more. You have *exactly* the heat you want for each cooking job.

And that is just *one* of the work-saving features of this advanced electric range. Others include: self-computing timer, color-keyed heat indicator, single oven control, and the biggest standard-range oven.

See your L&H dealer now — or write for his name.

A. J. Lindemann & Hoverson Co.
The Finest in Home Appliances since 1875
Milwaukee 13, Wisconsin

A. L&H "Lectro-Host" Water Heaters — for long life and low-cost hot water.
B. L&H "Lectro-Host" Refrigerators — just what you want in kitchen convenience.
C. L&H "Lectro-Host" Home Freezers — the key to money-saving marketing methods.

Every jar a winner

[*From page 50*]

Raspberries

Makes 7 pints

Wash . . . **4 to 7 quarts raspberries,** 1 or 2 quarts at a time
Cap and stem.
Drain well.
Combine **3 cups water**
1½ cups sugar
Cook to dissolve sugar.
Pack berries tightly, without crushing, into hot, sterilized jars.
Cover with boiling syrup.
Adjust lids.
Process for 20 minutes in boiling-water bath.

Oil Cucumber Pickles

Makes 8 pints

Slice . . . . **5 quarts cucumbers** (about 25, 2 to 5 inches long)
Arrange in layers with
½ cup sliced onions
Sprinkle each layer with equal parts of
½ cup coarse salt
Let stand overnight.
Combine **1 cup vinegar**
1 cup water
Dissolve . **2½ teaspoons powdered alum** in vinegar-and-water mixture
Pour over cucumbers and let stand 4 hours.
Drain.
Combine pickles with:
¼ cup white mustard seed
2 tablespoons black mustard seed
1½ teaspoons celery seed
Pack into hot, sterilized jars.
Mix together:
1 cup vinegar
1 cup water
¾ cup olive oil
Pour over pickles.
Seal.

Plums

Makes 7 quarts

Wash . . . **14 to 18 pounds plums**
Remove stems and peel.
Cut in halves.
Combine **5 cups sugar**
5 cups water
Put plums in boiling syrup and heat through, about 3 minutes.
Pack plums into hot, sterilized jars.
Cover with boiling syrup to within ½ inch of tops.
Adjust lids.
Process for 15 minutes in boiling-water bath.

Rhubarb

Makes 7 pints

Wash and cut into ½-inch pieces
7 to 10 pounds rhubarb
Combine **3 cups sugar**
3 cups water
Cook to dissolve sugar.
Drop rhubarb into hot syrup.
Cover and heat to boiling.
Remove from heat.
Let stand 15 minutes.
Pack tightly into hot, sterilized jars.
Cover with boiling syrup.
Adjust lids.
Process in boiling-water bath for 10 minutes.

Pickled Onions

Makes 6 pints

Peel . . . . . **3 quarts small white onions**
Cover with
boiling water
Let stand overnight.
Drain.
Cover again with
boiling water
Let stand 10 minutes.
Drain.
Pack onions in hot, sterilized jars.
Combine **1/3 cup molasses**
1/4 cup horse-radish
1/2 cup mixed pickling spices
6 tablespoons salt
Heat to boiling.
Pour over onions.
Seal.

Mixed Vegetables

Wash, drain, and place in individual piles on waxed freezer paper:
1 quart peeled tomatoes, seeds removed
1 quart shelled peas
1 quart sliced carrots
1 quart corn, cut from cob
1 bunch chopped celery
Pack 1 inch of tomatoes in the bottom of each jar.
Pack rest of vegetables in alternate layers in each jar.
Add to each jar
1 teaspoon salt
Cover vegetables with boiling water.
Process for 85 minutes at 10 pounds pressure.

Pickled Peppers

Makes 4 pints

Remove tops and seeds from:
6 red peppers
6 green peppers
Cut in quarters lengthwise.
Combine **2 cups vinegar**
2 cups water
1/2 cup sugar
Heat to boiling.
Add peppers.
Heat through slowly.
Pack in hot, sterilized jars.
Add to each pint:
1/2 teaspoon salt
1/4 teaspoon mustard seed
1/4 teaspoon whole allspice
Cover with hot vinegar liquid.
Seal.

Peaches

Makes 7 quarts

Peel . . . . . **14 to 21 pounds peaches**
Halve, and remove pits.
Combine **6 cups water**
3 cups sugar
Cook to dissolve sugar.
Put peach halves in boiling syrup and heat through, about 3 minutes.
Pack peaches into hot, sterilized jars.
Add . . . . . **300 milligrams ascorbic acid** to each quart, if desired
Cover with boiling syrup to within 1/2 inch of top.
Adjust lids.
Process in boiling-water bath for 20 minutes.

[*Turn to page 76*

Super-Special at $1.99

These stunning blouses (that you order by mail) were hand-picked to convince you that you can buy smart styles and fine quality at an unbelievably *low* price.

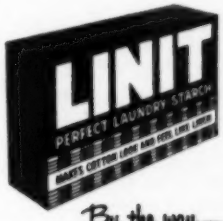
A Great Opportunity

Select and order one or more of these beautiful blouses. If you aren't delighted, return your purchase *at our expense* and we'll refund your money promptly. Fair enough?

★ We make this one-time offer at these prices because we want you to get acquainted with the smart styles, fine quality and outstanding values you may always expect from **Grayson-Robinson,** a great name in fashion apparel.

★ R.S.V.P.

Sheer and cool organdy, with Velveray polka-dot. Vat-dyed, guaranteed washable. Piped armhole, bow tie, jewel buttons. In white with navy or red polka dots. Sizes 32 to 38. **$1.99**



By the way—

All these blouses launder beautifully. To keep them fresh, crisp and dainty, we recommend starching with Linit,® the perfect laundry starch . . . Linit is easy to use, gives a smooth, lovely finish . . . and keeps all cottons clean longer.

GRAYSON ROBINSON

Pretty and practical stripe broadcloth. Sanforized — vat-dyed. Button trim back. You'll wear it right on into the Fall. (Launders easily with Linit Starch.) In white with red, navy or green stripe. Sizes 32 to 38. **$1.99**

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ITEM	SIZE	COLOR	2nd CHOICE
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B			

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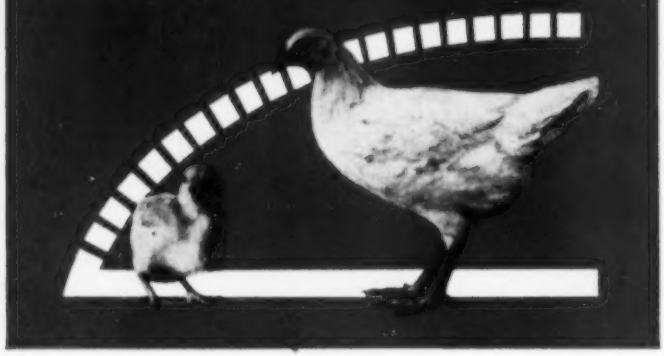
☐ MONEY ORDER ☐ CHECK ☐ C.O.D.

For Maximum Growth and for Proved Coccidiosis Protection



Use feeds containing both the preferred antibiotic

PROCAINE PENICILLIN

and the foremost coccidiostat

SULFAQUINOXALINE

You'll get greater poultry profits by feeding both the best antibiotic, Procaine Penicillin, and the top coccidiostat, Sulfaquinoxaline. Here's why:

PROCAINE PENICILLIN—the recognized stable and tested form of this antibiotic—has proved to be the product of choice for promoting the growth of poultry. Recent experiments have shown that Procaine Penicillin is the *most active, most consistent,* and provides the *most prolonged* growth stimulus of all antibiotics tested.

SULFAQUINOXALINE cuts stunting and mortality caused by coccidiosis. Scientific tests show that SQ is the most effective agent available against *all* the most damaging species of coccidia which attack chickens and turkeys.

Ask your dealer for feeds containing *both* of these outstanding Merck products and watch your profits grow.

Research and Production for Better Animal and Poultry Nutrition

MERCK & CO., INC.
Manufacturing Chemists
RAHWAY, NEW JERSEY
In Canada: MERCK & CO. Limited—Montreal

Every jar a winner

[*From page 75*]

Carrots

Makes 9 pints

Wash and scrub
12 to 14 pounds carrots
Slice.
Cover with boiling water; boil for 3 minutes.
Pack hot into hot, sterilized jars to within ½ inch of top of jars.
Add to each jar
1 teaspoon salt
Cover with boiling liquid, leaving ½ inch head space at top of jar.
Adjust lids.
Process at 10 pounds pressure for 20 minutes.

Snap Beans

Makes 9 pints

Wash and string
7 to 9 pounds green beans
Cut into 1-inch pieces.
Cover with boiling water.
Boil for 5 minutes.
Pack in hot, sterilized jars to within ½ inch of top.
Add to each jar
1 teaspoon salt
Cover with boiling liquid, leaving ½ inch head space in tops of jars.
Adjust lids.
Process at 10 pounds pressure for 20 minutes.

Assorted Fruits

Prepare for canning:
grapes
peaches
pears
pineapple
Combine:
1 part sugar
2 parts water
Cook to dissolve sugar.
Pack fruit in hot, sterilized jars.
Cover with boiling syrup.
Adjust lids.
Process for 30 minutes in boiling-water bath.

Pepper Relish

Makes 8 pints

Put through food grinder:
18 green peppers
18 red peppers
18 onions
Cover with boiling water.
Let stand 10 minutes.
Drain.
Add . . . **6 cups vinegar**
3 tablespoons salt
5 cups sugar
1 tablespoon mustard seed
8 stalks celery, chopped
Mix well.
Boil for 15 minutes.
Seal in hot, sterilized jars. END

Do you have a favorite housekeeping short cut? *Successful Farming* pays $5 for each suggestion published. Send your hints to: All Around the House, *Successful Farming*. The unused suggestions cannot be returned.—Editors.

Is America a better place because you own Life Insurance?

It sure is — and here's why!

Because your life insurance money is carefully *put to work*—and with purpose.

It helps put up new factories—which mean more jobs—and more goods.

It expands defense plants so that our country can be stronger.

It makes possible more housing for more people.

It builds new pipelines that bring the benefits of natural gas to hundreds of cities and towns.

It finances bridges and highways, helps people on farms through farm mortgages, puts up funds for electric light and power units, supplies money for railroad cars—in short, makes possible one thing right after another that you probably were never even aware of.

That's why your life insurance money helps make America better. It helps this country make more goods, offer more jobs, defend itself, grow stronger, and lets you and me live better.

All this—and then too, through life insurance, you're building security for yourself and your family—*on your own.* You're not depending on somebody else to do it for you.

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THE HOMEMAKER'S CORNER by Betty Woods

Save stooping! Make a no-stoop dust pan

Fit an old broom handle into your dust pan. You won't have to stoop when you use it!

Save hard rubbing! Polish furniture the easy way

No tiresome hard rubbing when you use O-Cedar All-Purpose Polish! And it *cleans* and *gleams* at the same time—*protects*, too! Use a little on dust cloth and dust won't scatter.

Save furniture moving! Dust floors the slick way

An O-Cedar Mit Mop glides right under low furniture. Gets floor dust fast because *sweep-suction* action picks up more dust and *holds* it!

For faster, easier furniture dusting—detach mop head and wear like a mit. Washable, shrinkproof.

See the man who sells

O cedar

"the greatest help in housekeeping!"

O-Cedar Corp'n
Chicago, Illinois

O-Cedar of Canada, Ltd.
Stratford, Ontario, Can.

Guaranteed by Good Housekeeping

You have more room than you think

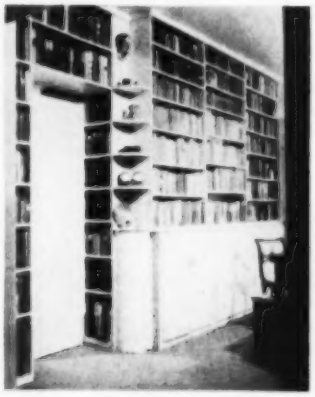
[*From page 80*]

A stout wood box mounted on wheels would slide easily into the space under your sink. Or fit a bench under one of the kitchen windows with pull-out drawers underneath. By adding a padded top, the bench would also create a rest spot for you! An identical bench in the back hall would also provide your husband with a place to put his work shoes, rubbers, and boots before he comes into the house.

Open basement stairs offer a wonderful opportunity for more built-in shelf space. Close in the open side with shelves to hold your canned goods, or cupboards in which you can place your laundry materials and supplies. Open shelves can be glued to a cement wall with floor-tile adhesive. This would be a good place to put all the little things you want handy when you do the week's ironing—cleaning fluid, straight pins, scissors, clothes-brush, and a piece of tailor's chalk to mark those places needing mending.

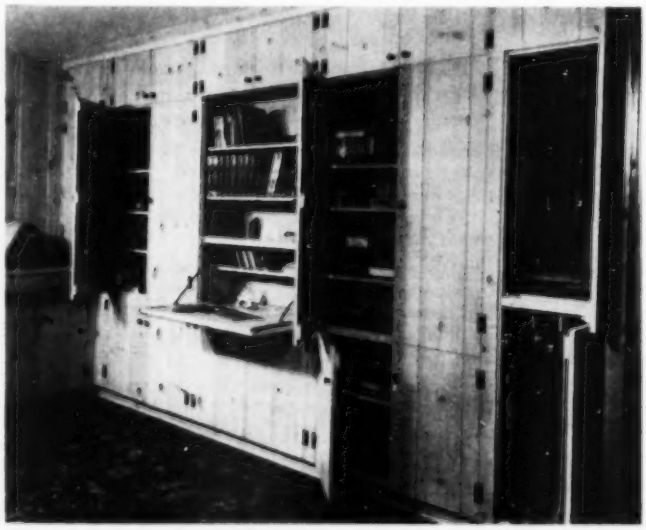
You have lots of space under the bed in your bedroom—but if you use it, use it wisely. For instance, build a box shallow enough so that it will slip under the bed easily, and mount it on furniture slides. It will supply you with a surprising amount of blanket storage.

Analyze the utility your closet shelves are providing you and your family. Perhaps the addition of narrow, staggered shelves would give you a space for hats, gloves, purses, and scarves. Umbrellas can be clamped on the wall, out of the way, with the same kind of clamps used to hold the brooms in your kitchen closet. You'll find housekeeping easier after organizing and expanding your storage!



Well-proportioned shelves and cabinets extending width of room add enough space to assemble all of family's books in one place, creating library in a limited area

Farm records, bills, sales receipts are kept handy in drawers compactly built into a small corner. This type of "office" eliminates the need for a separate room



A storage wall like this could transform your utility room into a family recreation room. Shelves for books, writing materials, and a let-down table make an excellent study corner. The sectioned cupboards and the racks hold game equipment. **END**

SUPER KEM-TONE provides this lovely wall treatment for only a few dollars. Woodwork in matching KEM-GLO colors.

Hundreds of Color Schemes in the SUPER KEM-TONE COLOR ALBUM

Turquoise with accents of Sunset Rose, and ceiling of Shell Pink. That's just one of hundreds of distinctive, decorator-approved color schemes shown in this album. At a glance you can select colors for walls, floor and furnishings, sure of color harmony. See it at your dealer's.

***GUARANTEED WASHABLE**

After it is thoroughly dried, tests prove SUPER KEM-TONE will withstand repeated washings with usual household cleaners without losing its beauty. Dirt, grease, even crayon marks wash right off its tight, rubber-tough surface.

Bermuda Turquoise

Tops with teens (and every age) . . . *in*

Super Kem-Tone

Bermuda Turquoise . . . a flattering, light-hearted new color with a smart future! Of course it's SUPER KEM-TONE, the de luxe wall paint that goes on smooth as velvet, dries in an hour, color-styles a room in less than a day. It's so durable, too, countless washings won't spoil its rich finish. Your dealer will show you high-fashion deep tones, wonderful pastels and unusual "in-between" shades to assure success for all your decorating plans. Also, matching colors for woodwork in KEM-GLO Lustre Enamel. If you wish, we will recommend a reliable painting contractor.

$1.65 QUART $5.19 GALLON Deep Colors Slightly Higher

NO THINNING . . . JUST STIR AND APPLY

SUPER KEM-TONE is Guaranteed* Washable or your money back by seven leading paint companies . . .

Acme Quality Paints, Inc., Detroit — W. W. Lawrence & Co., Pittsburgh
The Lowe Brothers Co., Dayton — John Lucas & Co., Inc., Philadelphia
The Martin-Senour Co., Chicago — Rogers Paint Products, Inc., Detroit
The Sherwin-Williams Co., Cleveland

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Kem-Tone

Top Value in Thrifty Home Beauty

The oil paint that mixes with water. Is easy to apply over any wall surface, dries in an hour to a lovely flat matte finish. Amazingly economical, one gallon thinned with two quarts of water makes a gallon and a half of paint, ready to apply, at only $2.73 a gallon.

$1.39 Qt. **$4.10** Gal. (in paste form)

KEM-GLO

Looks and Washes Like Baked Enamel

Miracle lustre enamel for kitchens, bathrooms, all woodwork, indoor and outdoor furniture. One coat covers most surfaces, dries in 3 hours to a durable finish that washes as easily as your refrigerator. Even boiling water won't hurt its beautiful finish. Colors match SUPER KEM-TONE colors!

$1.45 Pt. **$2.49** Qt. **$8.35** Gal.

"We're a 3-generation Maytag family!"

—says Mrs. Earl H. Merritt of New Augusta, Indiana

Meet this 3-generation Maytag family from Indiana: grandmother, Mrs. Neva Merritt of Brownsburg; mother, Mrs. Earl H. Merritt of New Augusta; and granddaughter, Mrs. Thomas Hadley of Danville, owner of this Maytag automatic.

Mrs. Earl H. Merritt, second generation of this family, explains their loyalty to Maytag: "When my daughter, Ann, shopped for a washer, it *had* to be a Maytag. Of course . . . for Ann's grandmother is still using a 1923 Maytag. Imagine . . . it's been washing clothes for nearly 30 years!"

Mrs. Hadley says goodbye to washday work with her new Maytag automatic. "I just set a simple control. Then, I can play with my son, shop, or just rest." Meanwhile, the Maytag automatic washes, rinses, spin-drys, shuts off . . . *all automatically*. Famous Gyrafoam washing action gets clothes really clean. See it today . . . and learn why Maytag has been the most-wanted washer for three generations.

Mrs. Earl H. Merritt finds Gyrafoam action in her 1951 conventional Maytag helps her whizz through a big wash. Daughter Ann (Mrs. Hadley) gives her a hand.

Maytag Dutch Oven Gas Range. Super insulated oven keeps heat in. Automatic controls. Giant burners. Dutch cooker well. The Maytag range is so easy to clean and to keep clean. Built to "CP" standards.

3-generation dealers too! Left to right: father, Arthur E. Naylor; grandfather, A. D. Naylor; and grandson, Howard Naylor. All are Maytag dealers in Oakland, Maryland.

America's best appliance dealers feature

Maytag

WASHERS • IRONERS • RANGES • FREEZERS

Water bath, for fruits, is a kettle deep enough so water covers jars. Rack holds jars off bottom; tight lid holds steam in

Pressure canners are necessary for meats and vegetables. Easy and safe to use if the instructions are followed

Pressure saucepans that have 10 pounds' pressure may be used for canning small amounts. Increase the time

Will your canning be successful?

By Jan Maple

Filling your fruitroom with long rows of home-canned foods—without a single loss—is not a matter of luck! One of the best ways to be sure of success is to get the right tools and utensils and know how to use them.

Is a pressure canner necessary? Yes! To protect it against poisoning from botulinus bacteria, food must be heated far *above* boiling temperature. This is impossible in an ordinary cooking pan. Foods low in acid—vegetables, meats, soups, and overripe fruits—are ones in which botulinus thrives best. *For these, use a pressure canner.*

Each pressure canner has its own instruction book, and it should be carefully followed. If you've lost yours, write for another one; don't trust your memory.

Here are some friendly reminders:

1. If the pressure gauge is the dial type, have it checked for accuracy each year before canning season. If it is used constantly, it should be tested occasionally *during* the canning season as well. Most county extension workers do this as a free service—or tell you where you can have it done. The weight-type gauge just requires thorough cleaning, and you can do that yourself.

2. Before each use, clean safety valve and petcock (on some pressure canners these are one and the same). Do this by drawing a pipe cleaner or piece of string through them. Some types of canners have a safety plug which is to be sent in to the factory for a yearly checkup.

3. Before canning season begins, check the canner for worn gasket, broken or loose handles, or any other damaged parts. Replace or repair where needed.

4. Altitude makes a difference in the pressure required to sterilize your canned foods. At elevations higher than 1,000 feet above sea level, greater pressure is needed. See your instruction book or ask your county extension service about this.

5. Unless you have the automatic electric type of canner, don't go off and ignore it while it's working. It requires a watch-

[*Turn to page 82*

Give last year's dresses a new season in the sun with Rit's livelier greens and rose-deep pinks. Even your best friends won't believe you've raided your clothes closet instead of the shops. Remember—there's no risk, no worry with All Purpose Rit. You'll be an expert the very first time you dye!

The finest dye . . . the *high concentrate* dye . . . and only 25¢

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1437 W. Morris St., Indianapolis 6

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She'll say there's no other food mixer like it... she'll use it more than her electric one. As precisely made as an airplane engine, the Flint "Best" Food Mixer is unbelievably easy to use—and its stainless steel blades make quick work of stiffest cake batters—make easy work of all blending and whipping. See it wherever good housewares are sold.

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Reflector lettering—glass beads mirror light at night (like road signs)
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Baked enamel—white beaded letters—black background
Double plate 18" long—reads the same from either side

These attractive markers make thoughtful gifts — and make it easy for friends to find your home DAY n NIGHT. Install in a minute. Any wording you want, up to a total of 15 letters and numbers. PLEASE PRINT CLEARLY.

MAILBOX MARKER

Quantity discounts to clubs, church groups, etc., for resale. Write for details.

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SATISFACTION GUARANTEED OR MONEY BACK

"Toro makes America's most complete line of power mowers!"

Write TORO, Dept. X6-2, Mpls. 6, Minn.

Your canning

[*From page 81*]

ful eye to keep the pressure right on the nose, and to do an accurate timing job.

6. Never let your canner boil dry! Add water between loads to keep it at the level recommended in your instruction book. (Of course you add *boiling* water—cold water might crack the kettle.)

7. Always wait until the pressure has dropped to zero before loosening the lid of the canner. And let the pressure come down *gradually*.

8. Instead of lifting the lid straight up when you take it off, tilt the far edge up first so the steam will be shunted away from your face.

9. Be sure the kettle is really clean before and after each use. Scrub it with soap and water, but don't put the lid in the water. If it's aluminum, clean the inside with a mild scouring powder to prevent pitting. To remove stain, boil mild vinegar water in the kettle (1 tablespoonful vinegar to a quart of water).

10. Before storing your canner, fill it with crumpled newspaper to absorb any moisture on the inside; turn the lid upside down and set it on loosely.

Should a pressure saucepan be used for canning?

Some of the pressure saucepans can be used for processing small "dabs" of food in pint containers. They must be deep enough so that jars can stand on a rack or trivet and still leave clearance when the cover is put on. They must also have indicators or controls for holding 10 pounds of pressure.

In a pressure saucepan, canned foods should be processed 20 minutes longer than in a regular pressure canner.

What about "water-bath" canners?

Since botulinus bacteria do not survive in acid foods, rhubarb and most fruits—including tomatoes—do not require pressure processing. Other bacteria, yeasts, and molds that would cause spoilage of these foods can be destroyed by holding them at ordinary boiling temperature for certain lengths of time. (Follow a good instruction book for correct time periods.) The water bath is very satisfactory for this type of processing.

For water-bath processing, you need a kettle large enough to hold several canning jars of the size you'll be using. It must be deep enough so the water level can be an inch above the tops of the jars. The jars should be placed an inch apart and should be supported by a rack so they don't rest directly on the bottom of the pan. A cover is needed to hold in the steam and to keep the water at a full rolling boil during the processing time.

Special kettles are available for water-bath canning. Some of them have racks that can also be used as handy lifters for the whole load of jars. (See photograph at beginning of this article.)

A pressure canner can double as a water-bath canner, too. Fill it with water, set the lid on tightly—but don't fasten it—and leave the petcock wide open.

Any kettle or container you can "drum up" may serve as a water bath if it meets the requirements as to dimensions and capacity, and if it has a well-fitting lid. A homemade rack for the bottom is no problem—make it out of crisscrossed lath, or a piece of heavy wire mesh tacked on flat wooden blocks. **END**

How to

wash gloves

Four simple rules for keeping clean gloves at your finger tips

1. Wash your gloves as you do your hose, after every wearing. Whip up a suds in lukewarm water, using a mild detergent

2. Put the soiled gloves on your hands. Dip them into the suds and work the gloves together just as you do in washing your hands. This is easy on the fabric

3. For extra-soiled finger tips, use a soft nailbrush to loosen the dirt. When thoroughly clean, remove gloves and squeeze the suds through gently several times

4. Rinse gloves in lukewarm water. Now roll them in a towel to remove moisture. Place on dry towel and smooth flat. Block in shape, "ironing" out wrinkles with your fingers. This treatment keeps your summer glove supply smart and ever-ready

TRIPLE YOUR MONEY BACK

if you don't agree SURE-JELL Pectin makes jams and jellies with finer Real Fresh-Fruit Flavor!*

We make this offer to let you see for yourself that jams and jellies made with Sure-Jell have *more* of that rich *Real Fresh-Fruit Flavor*. Here's why:

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One-minute boil—saves precious juice and flavor!

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Highly concentrated—a *natural* fruit pectin product!

IT'S A FACT!

Almost 3½ times as many glasses of jam and jelly were made with Sure-Jell in 1951 than were made with *all other powdered pectins combined.*

***HERE'S ALL YOU DO to get triple your money back**

If you've ever made jams and jellies with finer *Real Fresh-Fruit Flavor*, just return the front panel of the Sure-Jell package (the one with the jelly glasses on it) to Sure-Jell, Dept. PW, 250 Park Ave., New York 17, N. Y. Include your name and address, what you paid for Sure-Jell, and 25 words or less on why the flavor disappointed you and what method of jelly making you prefer. You'll get back *triple* what you paid for Sure-Jell, plus postage costs.

A Product of General Foods

SURE-JELL is America's Largest-Selling Powdered Pectin!

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Modern Engines, Modern Heavy Duty Motor Oil and Modern Wix Oil Filter Cartridges

In modern, high compression farm engines, parts fit closer, lubrication bears a heavier burden and you need exceptional filtration to keep the new, heavy duty, detergent type oils at peak efficiency. Today's WIX Oil Filter Cartridge gives you this superior filtration because it contains the modern, heavy duty filtrant—

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HEVI-DUTY WIXITE with its resilient density and electronically controlled construction removes more harmful dirt, grit, dust and sludge. Why? Because this sludge-thirsty filtrant filters through its full depth, *but does not remove* detergent additives from the new oils. For greater protection of your tractor, truck, car and stationary engines, "Clean Up The Oil With Wix." Your Farm Equipment dealer can supply you with WIX Engineered Filtration.

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June poultry pointers

Use feed helps wisely. Antibiotics and vitamin B_{12} have become magic words in the feed industry, but they won't do everything, warn the poultry specialists at the Wisconsin Experiment Station. When correctly used, antibiotics and B_{12} make a good ration at lower cost. However, in some cases these materials do not make the ration any better.

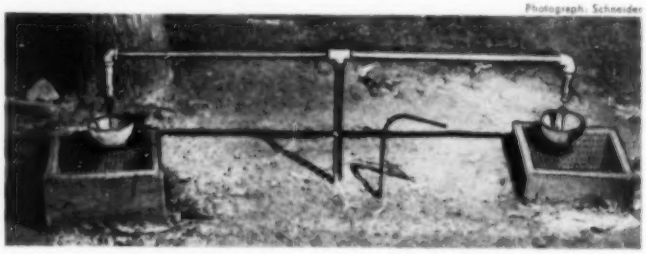
For instance, antibiotics don't seem to increase egg production. The poultry specialists say that hens get enough B_{12} from a built-up litter to support egg production. In their research, antibiotics and B_{12} supplement didn't improve egg production of hens on built-up litter. However, for breeding hens the microorganisms in the litter may not make enough B_{12} to insure good hatchability of eggs. In this case, vitamin B_{12} should be added to the ration.

The university tests also show that turkeys on a good Ladino clover range do not need antibiotics or B_{12} added to the ration after they're 6 weeks old. In these tests, gains on a simple corn-soybean meal ration were just as good as gains on a more expensive ration supplemented with B_{12} and antibiotics.

Low-cost range waterer. The simple range waterer pictured below makes the watering chore easy for Foster MacDonald, Jefferson County, Illinois. Two watering bowls hang from the T-shaped pipe which is attached to the farm water supply. An underground shutoff valve turns off the water during the winter to prevent freezing.

The water level is maintained by a two-way valve in each cup. Wire-covered boxes below each bowl prevent mudholes and provide a place to pour water used to clean the bowls. Waterer is used in the summer only, and bowls can be easily removed for winter storage.

Photograph: Schneider



Keep corn healthy [*From page 43*]

Corn diseases. Let's first consider corn diseases. They have been a hot topic since last season's unexpected outbreak of leaf blight swept west across the Cornbelt to eastern Nebraska and north into Minnesota and Wisconsin. Losses in many areas were 5 to 10 percent of the crop.

Will leaf blight invade the Cornbelt again this year? If the same cool, high-humidity conditions prevail in July and August, it will undoubtedly recur. But such a season is the exception.

What are the corn diseases to be most feared? Benjamin Koehler, University of Illinois plant pathologist and an authority on corn diseases, reports that during the Forties disease reduced Illinois corn potential by about 15 percent. He breaks this disease loss down as follows:

Disease	Percent damage
Diplodia stalk rot	4.12 percent
Black-bundle disease	3.43 percent
Gibberella stalk rot	2.26 percent
Root rots	2.00 percent
Diplodia ear rot	1.42 percent
Fusarium ear rot	.98 percent
Smut	.84 percent
Stewart's disease (bacterial wilt)	.65 percent
Helminthosporium leaf blight	.40 percent
Gibberella ear rot	.36 percent
Nigrospora ear rot	.32 percent

Since you've already chosen your hybrids for this year, you can't do anything more to protect further your 1952 corn crop from disease. But you can take steps this year to avoid needless corn-disease risk next season. Carefully check the corn diseases that are the greatest problem in your community. In selecting your hybrids for next year, use only those strains which have shown strong resistance to those particular diseases.

Starvation. Anything which retards or reduces the movement of plant food into corn plants results in one degree or another of starvation. Low fertility, heat and drouth, unseasonably cool weather, or a thick growth of weeds all have the same effect.

Fortunately, most problems can be influenced or controlled at some stage during the corn-growing season. In early June, you still can provide more plant food through side-dressing at the time of cultivation. Each year more farmers are adding irrigation equipment to prevent starvation resulting from heat and drouth.

Insects. During the last 15 years various scientists—agronomists, entomologists, corn breeders, and chemical engineers—have put powerful insect-fighting weapons in hands of corn farmers. You have practical control measures for all the common insect enemies of corn, such as corn rootworms, European corn borers, grasshoppers, chinch bugs, wireworms, cutworms, seed-corn beetles, ear worms.

In many important corn-growing areas, the most serious insect enemy of corn is the rootworm—Northern, Southern, or

[*Turn to page 86*]

Ford TRACTOR

AN IMPORTANT MESSAGE
TO OUR CUSTOMERS AND FRIENDS

We are happy to be able to tell you that the lawsuit brought more than four years ago against Ford Motor Company and Dearborn Motors Corporation by Harry Ferguson and Harry Ferguson, Inc. has been settled by agreement of the parties.

There are three points connected with this settlement which, as a present or possible future owner of a Ford Tractor, we want to make clear to you. Regardless of what you may hear to the contrary, these are the FACTS.

3 POINTS OF INTEREST
To Our Present and Future Customers

1 Ford Motor Company will continue production of the present Ford Tractor without interruption, and Dearborn Motors Corporation will continue to market them nationally as in the past. By the end of 1952, Ford Motor Company has agreed to make two simple changes, and only two changes, in the means of operation and control of a pump used in the hydraulic system in the Ford Tractor. After these simple changes have been made, there is nothing in the settlement of the suit to prevent Ford Motor Company from continuing the manufacture of the present Ford Tractor for as long as it may choose.

2 Ford Motor Company will continue to produce and Dearborn Motors Corporation will continue to supply, through its distributors and dealers, all repair parts for all past, present and future Ford Tractors.

3 Ford Tractors will continue to offer all the advantages of the present system of hydraulic control, the present method of attaching and operating implements, and all other features responsible for their wide popularity. Dearborn Motors will continue to offer its same complete line of implements.

A STATEMENT
By Mr. Henry Ford II

"In normal times Ford Motor Company would carry such a suit to a final conclusion in the courts. These are not normal times. Under the circumstances we were glad to get rid of the litigation to avoid the expense, harassment, and further interference with our tractor business involved in additional years in the courts.

"The settlement in no way interferes with Ford Motor Company's continuing to offer to the farmer the lowest priced tractor with hydraulic control and the present method of attaching and operating implements."

DEARBORN MOTORS CORPORATION, Birmingham, Mich.

National Marketing Organization for the Ford Tractor and Dearborn Farm Equipment

Dearborn FARM EQUIPMENT

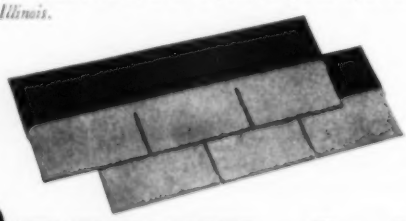
Quality
—SINCE 1795

Long ago, the U.S.S. Constitution was proud to carry on her defiant decks more than her share of our country's hopes.

Even as she sailed for us, Bird was making its own small contribution to the America we know today.

Ask your dealer about Bird Master-Bilt Shingles and Insulating Siding Products.

For further information write Bird & Son, inc., Dept. SF-6, 1472 West 76th Street, Chicago, Illinois.



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Keep corn healthy

[*From page 84*]

Western species. Agronomists say the Northern rootworm can be effectively controlled by good rotation practices. Hybrids vary in their resistance to rootworm attack. If this pest is a problem in your area, be sure to use hybrids that give maximum protection. For extreme rootworm problems, you will find some of the newest agricultural chemicals, especially BHC (high gamma isomer) and lindane, will give effective control.

The chemists, corn breeders, and entomologists have teamed up effectively against the corn borer. Entomologists have proved that keeping fence rows clean and stalks turned under reduces the borer problem. Corn breeders have shown it is possible to develop hybrids capable of producing a big crop of corn despite severe corn-borer infestation. DDT sprays can be used with good effect on first-brood borers. Scientists have taken the sting out of the corn borer for farmers willing to use all control measures.

In facing up to an insect problem in your corn, just remember that satisfactory control of most common insect enemies is available. If your situation is a puzzler, talk to your county agent or your local farm-chemical dealer.

Weeds. By June, weeds can be well in hand if farming methods and weather at planting time were favorable for all weed-control opportunities. (See "Weed Killers," page 44, May *Successful Farming*.) You can kill most of the weeds in your cornfield in the 10 days before and 10 days following planting. The rotary hoe, or a similar tool, can rank well ahead of the cultivator in controlling weeds.

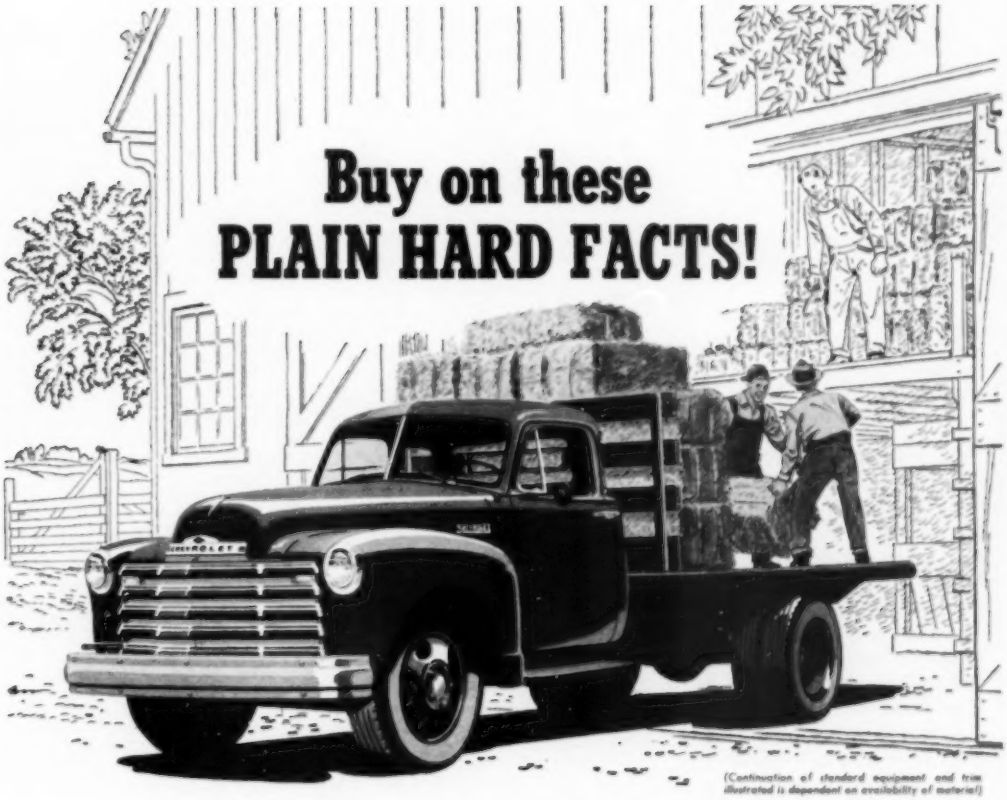
Weed killing is becoming more and more the Number 1 job—if not the *only* important job—of the cultivator. Each year more experiment stations and farmers prove that big corn crops can be produced without cultivation when other means of weed control are used.

When thinking of corn cultivation, we must remember that on many farms it causes serious injury to the corn crop. Pennsylvania State College says: "Any list of the enemies of corn should have the thoughtless man with the cultivator at the head." This probably could be printed with profit in large type and posted on the machine-shed door of many farms. The rules are simple for good, safe cultivation. Get close to the corn the first time over. After the corn roots begin to branch out, the shovels need to be kept at safer distances, even if you miss a few weeds.

If the weather is solidly against you after planting time, or if you farm on bottom land, and conditions make cultivation difficult or impossible, you can still have a corn crop. The chemicals of the 2,4-D type will knock out the broad-leaved weeds. We haven't one for grasses yet, but they seldom choke out corn.

You've got it firmly in your power to give the weeds in your cornfields the old one-two punch in most years. Get the most of them in May or early June. Cultivate with care and good judgment in June and July.

This concludes the series, "Keys to More Corn," extending from February through this issue of Successful Farming. *Watch* Successful Farming *in the future for up-to-date, proved methods of producing more corn.*



Buy on these PLAIN HARD FACTS!

(Continuation of standard equipment and trim illustrated is dependent on availability of material)

See for yourself how a Chevrolet truck can cut your costs in every way

America's truck users buy on down-to-earth facts, not fancy phrases. They demand results on the job.

That's why more of them buy Chevrolet trucks than any other make . . . buy nearly as many Chevrolet trucks as the next two makes combined!

What they get for their money is a rugged, sturdy, dependable truck that's factory-matched to their job and payload: Right power, right capacity, right price.

See your Chevrolet dealer. Find out how a Chevrolet truck can cut farm hauling or delivery costs. Chevrolet Division of General Motors, Detroit 2, Michigan.

CHEVROLET

first in demand in value in sales

Fact No. 1

Costs less to buy

List prices of Chevrolet trucks are lower than comparable models of other makes. As the world's largest manufacturer of trucks, Chevrolet takes advantage of production economies to *pass substantial savings on to you!* Your cash outlay is *lower*.

Fact No. 2

Saves money on the job

Chevrolet trucks save you money over the miles with great features. Valve-in-head economy, 4-Way Engine Lubrication, rugged Hypoid rear axle, extra-sturdy channel-type frame, Synchro-Mesh Transmission and plenty of others.

Fact No. 3

Right truck for every load

Your first interest in a truck is: "How well will it do the job?" That's where Chevrolet trucks have it, because they're factory-matched to the payload—tires, axles, frame, springs, engine, transmission, brakes. You get as much truck as your job calls for.

Fact No. 4

Keeps its value longer

It's a fact. Chevrolet trucks keep their value longer to bring you traditionally higher value. That means real, substantial dollar-and-cents savings at trade-in time. And it puts a clincher on the extra value and ruggedness built into every Chevrolet truck.

Snowy-white!

Yes, and more important, sanitary, too... because it's CLOROX-clean!

No other home laundering product equals Clorox in germ-killing efficiency! Clorox not only makes white and color-fast cottons and linens snowy-white, color-bright ... it provides hygienic cleanliness—extra health protection!

An exclusive, patented formula makes Clorox different from any other bleach and household disinfectant. It's free from caustic... that means gentler bleaching, more efficient disinfecting. So, to conserve linens...to protect health ...use Clorox every washday!

And CLOROX makes home germ centers sanitary, too!

It's easy to make bathroom and kitchen surfaces bright, fresh and sanitary with Clorox! For in routine cleaning, Clorox removes stains, deodorizes, disinfects . . . it's the most efficient germ-killer of its kind . . . a type of disinfectant recommended by public health authorities. Directions on the label.

Copr. 1952, Clorox Chemical Co.

When it's CLOROX-clean... it's SAFER for Family Health!

Guide to spring house repair

[*From page 45*]

In the case of spreading joints, the small separations can be filled with a calking compound or cement mortar. To repair broken brick, stone, or tile, remove the old material with a chisel and press the new unit into fresh mortar.

If you have a frame house, it is likely that winter storms have loosened or damaged the clapboards or wooden shingles. Damaged pieces can be removed with a nail ripper or by slipping a heavy hacksaw blade under the wood and sawing through the nails. The new shingle or clapboard can be slipped into place and fastened with rustproof aluminum nails under the lower edge of the overlapping one. Loose nails should be pulled out and the siding renailed in a new spot. Clapboard joints should be sealed with paint to prevent moisture from entering.

Bad leaks often start around window cornices, window frames, and trim. Check carefully for loose nails, cracks, rot, and warping. In renailing, set and putty each nail. Rotted wood should be replaced and all cracks calked or puttied after oakum has been tamped into the crack. Use oakum and calking compound to fill cracks between walls and window frames.

The final place to check for repairs is the roof. You should: (1) Renail loose shingles; (2) replace curled, broken, or missing shingles by slipping new ones beneath those in the course above and fastening each with at least two nails; (3) check metal flashings on dormers and chimneys for looseness, corrosion, and lack of paint. Renail and paint the flashings. Fill small holes in tin flashing with plastic roofing cement.

Alternate heating and cooling, destructive gases, and all kinds of weather take their toll on your chimney. Water that gets into cracks and freezes is especially destructive.

Start your checkup at the chimney cap. It may be cracked, or there may be an open joint between the cap and extending flue. Both let water into brickwork below. White efflorescent stains on bricks below the cap may indicate it isn't watertight.

Should you find a loose brick, remove it carefully. Chip off the old mortar, and soak the brick with water. Soak sides of the cavity, too. Then use enough new mortar to ooze out when the brick is pressed back in place.

When tuck-pointing mortar joints, take care not to damage sound mortar. Never apply mortar to dry bricks, because they will absorb moisture from the mortar and give you a weak joint. You can mix your own mortar using 1 part Portland cement to 3 parts sharp, screened sand. Add just enough water to make mixture stiff. Keep your batches small, preparing only enough for 45 minutes' work at a time.

After you have filled a few joints, working from the top down, finish them off by "striking" them with a tapered metal rod called a slicker, or with a short length of pipe. This compacts the mortar against the bricks, giving a smooth, concave joint and watertight protection.

The chimney cap should be put onto bricks that have been soaked to give good adhesion. Let the top edges of the cap slope outward to shed water. At its highest point, the cap should be level all around so wind won't cause downdrafts.

To seal tiny indentations in the chimney cap where water might collect and freeze, brush on a coat of grout—a soupy mixture of cement and water. Wet the concrete first.

Chimney repair

Clean mortar joints thoroughly before tuck-pointing. Double-check the joints where roof flashing has been inserted

Soak brickwork with hose or brush before tuck-pointing. Buy or make mortar, and add enough water to stiffen it

Apply mortar with a small pointing trowel. Pack mortar tightly in joint, scrape off the surplus flush with brick

Concrete chimney caps help protect bricks from weathering. Slope the concrete cap to drain to outer edge. END

Whatever you want to sew, you'll sew it better on a SINGER

Cording—fashionable "finish" for slipcovers . . . and garments, too.

Invisible Hems—thread doesn't show on the right side at all!

Metallic Stitch—so glamourous. Another SINGER fashion specialty.

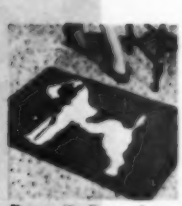
Bouclé Stitch—far easier than it looks. Gay on table mats, dresses.

Spark Stitch—dainty for dresses, blouses. Simple the SINGER way!

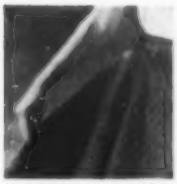
Hemstitching and picoting—a touch of luxury for curtains, linens.

Binding—sew on one or several rows at a time . . . varied widths.

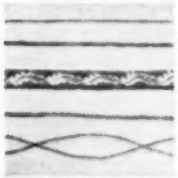
Setting in Zippers—no pucker. SINGER sews close and smooth.



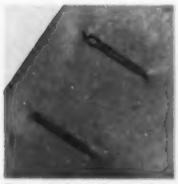
Deep-pile Rugs, fancy trims—easy, inexpensive on a SINGER.



Quilting—easy as 1,2,3. Popular for skirts, bedspreads, cushions.



Zigzag Stitch—for lovely decorative effects or setting in lace.



Buttonholes—beautiful, professional. Straight or keyhole style.

Ruffles, Gathers, Pleats—a SINGER forms them as it stitches!

World's favorite sewing machine for 100 years. See the newest models tomorrow!

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At right is the SINGER SEWING CENTER at 717 Wheeling Ave., Cambridge, Ohio. For one nearest you, see phone directory—or write Dept. S-30, 95 Liberty St., New York 6, N. Y.

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No breakfast skipping when you slip 'em beautiful bowls of new, improved Post Toasties! It's the *heap good* corn flakes—best tasting of all. Extra crisp, extra fresh—Post Toasties *won't mush up* in milk. Heap nourishing for young braves 'n gals, too—so get a big box tomorrow—the whole tribe'll love Post Toasties!

BEST THING THAT'S HAPPENED TO CORN SINCE THE INDIANS DISCOVERED IT!

Books

for your pleasure and profit

By Robert West Howard

Across France this summer, billboards display big, photographic posters carrying the legend, "Mieux qu'un cadeau, *un livre*" ("Better than any other present, *a book*"). Book publishers haven't started a similar campaign in the United States. But it's a good idea to keep in mind for "bride's month." Newlyweds will get enduring value and service out of the reference books in their gift packages.

For June wedding gifts and for all homemakers, I recommend:

Good Taste Costs No More by Richard Gump (Doubleday & Co., 575 Madison Ave., New York 22, New York, $5). The author is owner of Gump's in San Francisco, the fabulous emporium for Oriental jewels, silks, and art objects. Mr. Gump's advice on home furnishings boils down to: "The old masters weren't always on the beam," and "You're crazy to live beyond your means." He includes 200 illustrations of "horrible," "fair," and "good" examples of furniture and period pieces.

The American Household Encyclopedia, edited by N. H. and S. K. Mager (Pocket Books, Inc., International Bldg., New York 20, New York, $2.50), compiles homemaking advice from a hundred industrial and professional organizations in a 625-page book. The 12 sections present everyday details in housekeeping, home decoration, gardens, food selection and buying, social usage, home medicine, and family business.

Better Homes & Gardens Baby Book (Meredith Publishing Co., Des Moines 3, Iowa, $2.95) will come in mighty handy long before the young husband reaches for the phone about 2 o'clock one morning and stutters, "Doc, I think you better get over here right away." As usual, *Better Homes & Gardens* editors have brought off a thorough treatment of their subject with hundreds of illustrations.

The first 50 pages deal with prenatal care. The other 200 coach both the parents and "the new boss" from the delivery-room door to the kindergarten door. The month-by-month advice on diet, training habits, and development is something that parents pore over.

I suspect a good many brides would welcome a gift box of 11 booklets from the largest publisher in the low-price field, the United States government. Ten of them are the best sellers among all the pamphlets issued by the Department of Agriculture. The eleventh is **Infant Care,** issued by the Children's Bureau. (This is Uncle Sam's runaway best seller, with more than 28,000,000 sales to date.) All 11 can be ordered from Superintendent of Documents, United States Govern-

ment Printing Office, Washington, D. C.

Individual titles and prices are: **Food Fare, Food Management, and Recipes,** 96 pages (25 cents); **Meat for Thrifty Meals,** 46 pages (15 cents); **Tools for Food Preparation and Dishwashing,** 31 pages (10 cents); **Pots and Pans for Your Kitchen,** 32 pages (10 cents); **Home Freezing of Fruit and Vegetables,** 48 pages (15 cents); **Pointers on Making Good Lawns,** 6 pages (5 cents); **Farm Fish Ponds,** 29 pages, (10 cents); **Turkey on the Table the Year Round,** 22 pages (10 cents); **Stain Removal From Fabrics,** 30 pages (10 cents); **Home Canning of Fruits and Vegetables,** 24 pages (5 cents); **Infant Care,** 148 pages (20 cents).

At the same time, you may want to do Grandma and Grandpa a favor. In Washington this spring, I was shown proof sheets of a splendid 16-page bulletin entitled **Food Guide for Older Folks.** The editors assured me it would be ready for distribution in June. Any family can have a copy, free, by writing: Office of Information, United States Department of Agriculture, Washington 25, D. C. Ask for Home and Garden Bulletin No. 17.

Bride, groom, attendants, and all the guests at the wedding should read **The Geography of Hunger** by Josue de Castro (Little, Brown, 34 Beacon St., Boston, Massachusetts, $4.50). This is the story of the world's food supply, its mental and physical influences on the human race, and of the tragic areas where malnutrition and "hidden hunger" have prevailed for thousands of years. The author is director of the Institute of Nutrition at the University of Brazil in Rio de Janeiro, and chairman of the Executive Council of F.A.O. of United Nations.

A first reading will prove to you that farming is, and will be, the most important profession on earth. Thereafter, your copy of **Geography of Hunger** becomes a reference book on rural world affairs, farm improvements, new food crops, and the defects in food-distribution systems.

Equally timely, and important, is **Human Fertility, the Modern Dilemma** by Robert C. Cook (William Sloane Associates, 119 W. 57 St., New York 19, New York, $4.50). Mr. Cook, editor of *The Journal of Heredity*, reports on the frightening world prospect of "too many people," and the influences of heredity. His views differ from some of those expressed by the author of **Geography of Hunger.** Both books deserve wide readership and discussion among farm families.

For special-interest reading this month, I believe you'll like: **Soil Development** by Edward H. Faulkner (University of Oklahoma Press, Norman, Oklahoma, $3). Whether you want to cuss him or cheer him, the author of *Plowman's Folly* comes through with evidence that you can "grow soil while you grow crops."

Editors would have fewer ulcers, farm organizations would get better "write-ups" if club and organization publicity chairmen followed the basic rules of writing for publication. **Agricultural and Technical Journalism** by Prof. Rodney Fox of Iowa State College (Prentice-Hall, Inc., 70 Fifth Ave., New York 11, New York, $4.65) has all the rules, plus a lot of skilled advice on radio writing and news photography. An excellent text for all of us.

The triple-purpose antibiotic for

VIGOR—FAST GROWTH
DISEASE CONTROL

AUREOMYCIN

Aureomycin has long been recognized as the preferred antibiotic for use in

Calves
Cattle
Pigs
Horses
Poultry
Small Animals

Aureomycin in manufactured feeds promotes faster growth and tends to prevent infection. Now, this famous antibiotic is making *new history* as a medication. Many workers have shown that aureomycin is effective against diseases for which there was previously no successful treatment.

Some of the diseases for which aureomycin has proved an effective treatment are:

Calves: CALF SCOURS — PNEUMONIA. *Cattle:* FOOT ROT — SHIPPING FEVER—PNEUMONIA COMPLEX — SEPTIC MASTITIS — METRITIS. *Swine:* ENTERITIS, INCLUDING VIBRIO DYSENTERY — COCCIDIOSIS — SALMONELLOSIS — BABY PIG DIARRHEA. *Horses:* STRANGLES — SEPTICEMIAS — INFECTED WOUNDS—SHIPPING FEVER. *Small Animals, including Dogs, Cats and Fur-bearers:* MANY COMMON BACTERIAL INFECTIONS.

It is not surprising that aureomycin — most famous of *all* antibiotics in the healing of human diseases — should also prove highly successful in the treatment of animal diseases.

Make sure that this great antibiotic is *continually in use* on your farm.

Aureomycin is available in the following forms: AUROFAC* Antibiotic (Aureomycin) Feed Supplement obtainable only in manufactured feeds and supplements; and AUREOMYCIN-T.F. (Therapeutic Formula) Aureomycin and B_{12} Veterinary; AUREOMYCIN *Crystalline* CAPSULES Veterinary; AUREOMYCIN *Crystalline* INTRAVENOUS Veterinary; and AUREOMYCIN Hydrochloride *Crystalline* OBLETS** Veterinary at your druggist, feed store or through your veterinarian.

Free literature gladly sent upon request.

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Lederle

GALVANIZED SHEETS

For PROTECTION

Only galvanized sheets give you the strength of steel . . . the rust protection of zinc. Both are important in providing a strong, sound, leak-proof roof that double-guards valuable crops, livestock and machinery against damage and destruction for years and years. It's the first choice of farmers.

For STAYABILITY

Galvanized roofing holds at the nail holes . . . stays leak-proof and solid year after year with a minimum of maintenance. Farmers say it cuts down overhead by staving "overhead"—often for the life of the building.

For ECONOMY

Consider the economy of any roofing material with these three long-time cost factors in mind: (1) original price, (2) repair and upkeep, (3) years of serviceable life. Galvanized sheets are first choice of farmers because they know that the roof that gives them the longest, trouble-free service is the cheapest in the long run.

DON'T FORGET

Proper care pays! Material shortages are limiting new construction and replacement. Careful maintenance of present structures is more essential now than ever before. Expanding production of zinc and steel means ample supplies of galvanized sheets with the return of more normal conditions. In the meantime, a few simple steps with very little labor can extend the useful life of your galvanized roofing. The valuable booklets described below will tell you how.

ZINC INSTITUTE 2 OZ COATING SEAL OF QUALITY

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35 E. Wacker Drive, Room 2628
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Without cost or obligation, send the illustrated booklets I have checked.

- ☐ Facts About Galvanized Sheets
- ☐ List of Metallic Zinc Paint Mfrs.
- ☐ Directions for applying Galvanized Sheets
- ☐ Repair Manual on Galvanized Roofing and Siding
- ☐ Use Metallic Zinc Paint to Protect Metal Surfaces

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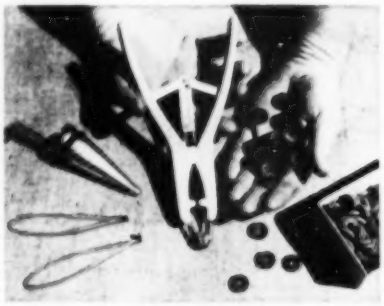
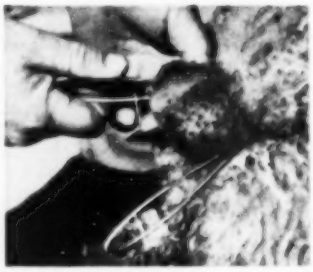
Send for FREE Booklets

Lamb elastration

By Richard Hufnagle



Equipment used for this new method of emasculation is shown at left. This method causes little loss in rate of weight gain

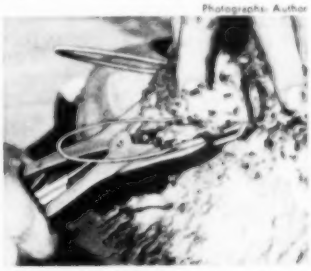


1. Clamps hold testes in the scrotum after operator makes certain testes are down far enough for elastic bands to be put above

2. Elastic band is slipped on cone-shaped stretcher, then onto applicator. Applicator is placed over the clamp and band released

Photographs: Author

3. Pressing handles together, with pliers-type elastrator, stretches band so it will pass over clamps and fit above scrotum

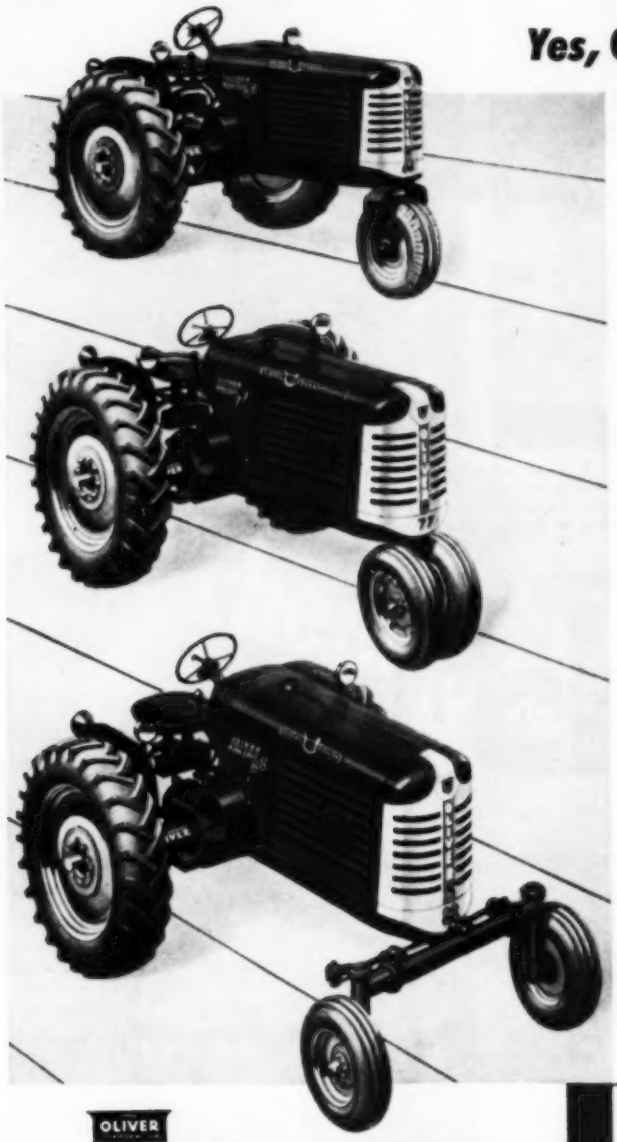


4. Band should be placed close up to lamb's body but not far enough to include teats. Release handles before removing clamps

5. After clamps are removed, band is held in place by thumb, prongs of elastrator slipped out, and elastic band left in place

6. Little discomfort is felt by the lamb. In about a month the scrotum becomes dried and shriveled and will fall off by itself. **END**

Is There a Diesel Tractor for Every Farm Job?



Yes, Oliver and only Oliver makes all its models with Diesel Power

What are the sizes?

The Oliver "66" (two plow), the "77" (two-three plow), and the "88" (three-four plow). Row crop or standard models.

Will I save by buying a diesel?

Yes, but the amount depends on how much you use your tractor . . . the more hours you work it, the more an Oliver Diesel saves. It burns about 6 gallons of fuel where a gasoline engine burns 10 . . . cost-per-gallon is roughly half. Ask your Oliver dealer . . . he knows the figures for your locality.

Does it have as much power?

Yes. Oliver Diesels have the same horsepower rating as other Olivers in their class. They burn fuel slowly, start easily in cold weather, take heavy loads hour after hour.

Is the power as smooth?

With an Oliver, yes. Oliver gives you smooth, *six-cylinder* performance in the "77" and "88" . . . four cylinders in the "66".

Do I get all the Oliver features?

Every one! Features include: Six forward speeds, Grouped controls, Direct Drive Power Take-Off, "Hydra-lectric" implement control, easy-riding Oliver seat.

How can I tell if diesel is best for me?

See your Oliver dealer. He knows how fuel costs compare . . . knowing how much you work your tractor, he can tell you whether the fuel savings make the diesel your best buy. Remember, your Oliver dealer is *strictly impartial* . . . he sells tractors for diesel, gasoline and LP-gas, in all sizes. His only interest is to see that you get the very best power for your farm operation. See him soon! The Oliver Corporation, 400 West Madison Street, Chicago 6, Illinois.

OLIVER

OLIVER

"FINEST IN FARM MACHINERY"

The Oliver Corporation FS-6
400 W. Madison Street
Chicago 6, Illinois

( ) Please send me literature on Oliver's complete line of Diesel tractors.

Name.....

Address.....

Town.....PP.....State.....

Cake 'n' ice cream. America's Sunday-dinner stand-by. Here the perennial twosome share the common ingredient, sweetened condensed milk. This is whole milk that has been evaporated, which means that some of the water has been removed. Added sugar makes it ideal for desserts

Children love Floating Island! And with a plate of brownies on the side, you have a sure-fire hit with the younger set. This is one of the many ways you can include an abundant milk supply in nourishing, tempting everyday desserts

Milk desserts

By Mary Collum

Climax your next party-perfect meal with one of these lush, milk-rich desserts. And watch the family polish up their plates to a kitchen-cupboard shine. Know, too, that the dessert you are serving is more than good to eat, more than downright delicious. It's extra nourishing!

You know by now just how important milk is—in everybody's diet. It's not only a must for the toddler set, but for teen-agers, old folks, and for you. You know the children need four glasses every day, and teen-agers can use five glasses. You, yourself, shouldn't try to get along on less than three.

But do you know how to include extra milk in your meals by cooking with different forms of milk? Are you familiar with evaporated, sweetened condensed, and dry milk?

Evaporated milk. This is homogenized, whole milk. It has been processed to remove a little over half the water that is naturally in milk. It is sealed in cans and sterilized. Unopened, it will keep indefinitely on your kitchen shelf.

Mix 1 cup of evaporated milk with 1 cup of water and you have 2 cups of regu- [*Turn to page 90*

Evaporated milk whips into a light and airy froth to make this delicious Maple-Nut Chiffon Pie. Chill it in the coldest part of your refrigerator and you can whip evaporated milk just the same as cream

Are these your TOUGHEST washing jobs?

Work clothes, with greasy, ground-in grime?
Change to Cheer!

Towels with smudgy streaks?
Change to Cheer!

Napkins with jelly stains?
Change to Cheer!

SPECIALLY MADE FOR "TOUGH-JOB WASHING"

PROCTER & GAMBLE'S EXCITING, NEW

cheer

New, exclusive formula! Amazing new formula makes CHEER really *different!* For CHEER is specially made to make light work of your heaviest, toughest washing jobs. So CHEER can actually *guarantee* you the *cleanest washes possible!*

Miracle whitening agent! CHEER *guarantees* that you'll rinse out the *whitest possible washes*, too . . . thanks to CHEER's miracle whitening agent. CHEER gets clothes whiter than any leading soap, in hardest water—without bleaches, water softeners, or any other washday "extras."

Safe for colors! Kind to hands! Surprising but true. With all its extra washing power, pleasant-scented CHEER is *safe* for colored washables, truly *gentle* on your hands. Use it for everything you wash—from dirtiest "tough-job" laundry to the lightest things in your family wash. Dishes, too!

Cheer is Thrifty! And the big buy is the Giant Economy Size!

Wonderful for NO-RINSE washing, too!

© 1952, THE PROCTER & GAMBLE COMPANY. CHEER IS THE TRADE-MARK OF A SPECIAL ALL-PURPOSE DETERGENT MADE BY PROCTER & GAMBLE

GUARANTEES YOU THE CLEANEST, WHITEST WASHES POSSIBLE!

...for everything you wash!

Double-your-money back . . . if you don't agree that new CHEER gives you the *cleanest, whitest* washes possible. CHEER gets clothes *cleaner* than any soap you can buy. And new CHEER get clothes *whiter* than any leading soap, in hardest water. CHEER not only removes grease and graying dirt, but dulling soap film as well. Try it next washday!

Fed up with **scorchy** pans?

BRILLO
soap pads -
TWICE the **SHINE**
in half the time!

Whisk off scorch with a square, metal-fiber Brillo *pad-with-soap!* Shine tests *prove* Brillo outshines all types of cleansers tested. Gives aluminums *twice the shine in half the time!*

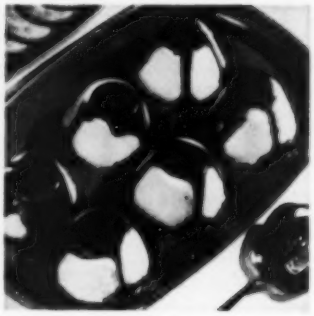
RED BOX—*soap-filled pads*
GREEN BOX—*pads plus cake soap*
THRIFTIER—5 AND 12 PAD BOXES

New improved
Brillo lasts longer!

-MORE SHINES IN EVERY PAD!

Milk desserts

[*From page 91*]



Newest form of milk for your cupboard shelf is nonfat dry milk. Here we've used it in that family favorite, Baked Custard

lar milk. It has the same food value as, or even a little more than, fresh whole milk.

Sweetened condensed milk. Here is a milk every bit as concentrated as evaporated milk. But it differs from evaporated milk in that it has sugar added. This extra sugar makes it a natural for use in all kinds of cookies, frosting, and desserts.

Like evaporated milk, sweetened condensed milk will keep without refrigeration as long as the can isn't opened. After you open it, store the covered can in the refrigerator.

Dry milk. The newest of these three forms of milk, dry milk can be made from either whole milk or skim milk. Practically all the water is removed, leaving a creamy, white powder.

Most of the dry milk available in your stores is made from skim milk, and is called *nonfat dry milk*. Use it just as you would regular milk in your own recipes. All you have to do is add 3 to 4 tablespoons of dry milk to 1 cup of water, and you have 1 cup of milk.

Floating Island
Makes 4 servings

Combine **4 eggs**
$\frac{2}{3}$ cup sugar
1 teaspoon flour
Stir in **$2\frac{1}{2}$ cups milk,** scalded
Cook, stirring constantly, over hot, but not boiling, water until mixture coats a spoon.
Remove from heat immediately.
Pour into cold bowl; cool slightly.
Stir in **$\frac{1}{4}$ teaspoon salt**
2 teaspoons vanilla
Chill rapidly.
Top with **Meringues,** made as follows:
Beat until frothy:
2 egg whites
$\frac{1}{8}$ teaspoon cream of tartar
$\frac{1}{8}$ teaspoon salt
Add **1 teaspoon vanilla**
$\frac{1}{4}$ cup sugar, 1 tablespoon at a time, beating well after each addition
Continue beating until mixture is stiff.
Scald . . . . **2 cups milk**
Drop meringue by tablespoons into milk.
Cook over low heat until meringues are firm, about 5 minutes.
Lift carefully onto custard.

Kool-Aid
by the **Pitcher Full**

BUY 6 PKGS. and SAVE on Soft Drinks!

Six packages of Kool-Aid make 12 quarts of cold, delicious beverage. At 5¢ a package, think of the big savings in soft drinks! Don't run out; when you get down to 2 packages, Buy Six and SAVE! Choice of six refreshing flavors.

AT GROCERS 5¢

"KOOL-AID"® PERKINS PRODUCTS CO. © 1952 P.P. CO.

Eyes tired?

MURINE
brings quick relief

Enjoy wide-awake eye comfort in seconds—with just two drops of Murine in each eye. Use Murine as often as you wish. Its seven tested ingredients cleanse and soothe your eyes as gently as a tear. Keep Murine always handy, both at home and where you work, because Murine makes your eyes feel good!

MURINE
for your eyes

Lemon-topped Yellow Cake

Makes 9 servings

Combine **½ cup lemon juice**
1 teaspoon grated lemon peel
Stir into **15-ounce can (1⅓ cups) sweetened condensed milk**
Prepare **½ package yellow cake mix,** as directed on package
Bake in 9x9x1¾-inch pan.
Spread lemon mixture on top of cooled cake.
Top with **½ cup chopped nuts**
Chill in refrigerator.

Custard Pie

Makes 9-inch pie

Blend **4 eggs,** slightly beaten
½ cup sugar
¼ teaspoon salt
½ teaspoon vanilla
Stir in **2½ cups milk,** scalded
Pour into **unbaked 9-inch pie shell**
Bake at 400° (hot) for about 30 minutes.
Test for doneness by inserting knife halfway between outside and center of custard. If pie is done, knife will come out clean.
Sprinkle pie with **nutmeg**
Cool on rack 15 to 30 minutes.
Chill in refrigerator.

Three-in-one Ice Cream

Makes 1 quart

Chill until ice cold
1 cup evaporated milk
Mash until smooth
1 medium ripe banana (⅓ cup)
Add to banana:
½ cup orange juice
2 tablespoons lemon juice
¾ cup sugar
few grains salt
Stir until sugar is dissolved.
Chill thoroughly.
Whip chilled milk with cold rotary beater, or electric beater at high speed, until fluffy.
Add **2 tablespoons lemon juice**
Continue whipping until stiff.
Fold into banana mixture.
Freeze, without stirring, in refrigerator tray.

Baked Custard

Makes 6 servings

Put in bowl
1 teaspoon butter or **margarine**
Pour over butter
2 cups warm water
Sprinkle over water
⅔ cup nonfat dry milk solids
Let stand 5 minutes.
Beat with rotary beater or electric mixer until milk is dissolved.
Let foam settle completely.
Combine **2 eggs,** slightly beaten
3 tablespoons sugar
¼ teaspoon salt
1 teaspoon vanilla
Add milk to egg mixture.
Pour into 5-ounce custard cups, ½ cup for each serving.
Bake at 350° (moderate) in a pan of hot water for 55 minutes.

[*Turn to page 98*

Your kitchen will sparkle with new color, new brightness—just decorate shelves with new "Plasti-Chrome" Royledge! Costs only about a penny a foot. New "plasti-chrome" finish keeps gay patterns "singing" with clean, lively color. See glorious new designs now at 5 & 10's, Supermarkets, Housefurnishing, Naborhood, Dept. Stores.

Royal Lace Paper Works, Inc., Bklyn.
"Royledge" Td. Mk. Reg. U. S. Pat. Off.

Shelf Lining Paper & Edging all-in-one. 9 ft. & 24 ft. pkgs.

NEW *Plasti-Chrome*
Royledge
for WOOD and METAL shelves

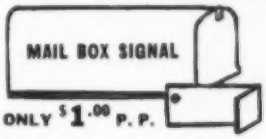
New ADHESIVE Edging moisten and apply

Corns

You get *super-fast* relief when you use *Super-Soft* Dr. Scholl's Zino-pads. They stop painful shoe friction, lift pressure on the sensitive spot . . . ease new or tight shoes . . . stop corns before they can develop . . . remove corns one of the quickest ways known to medical science. Get this fast relief today!

SUPER-FAST RELIEF!

Dr Scholls Zino-pads



Signals when mail has been delivered. Positive action. Fits any standard box. Visible from all directions. Does not interfere with name plate. No springs or latches. Not affected by snow or ice.

THOMAS MAIL BOX SIGNAL
Box 186 Rochester, Indiana

Decorating advice. Stores offering **Successful Farming's** home planning service are listed on page 112. Visit store nearest you for help with decorating problems.

KENDALL
Filter Disks
NEW "Compressed with "CONTROLLED FIBERS" for clean milk
Free Samples
KENDALL MILLS
WALPOLE, MASS.
Division of THE KENDALL CO.

Home freezing's so easy with VAPOCAN

NO INNER LININGS, no setups are needed with **VAPOCAN!** Simply stand carton upright and fill. The full-top opening makes filling and emptying easier, avoids spilling and waste. In the handy pint-and-a-half size, at most locker plants, appliance and department stores.

NO MESSY HEAT SEAL, no outer wrappings. Just press on the new improved plastic lid for a neat, sure seal. Lids are permanent. Can be used over and over again for economy. Mark lids with crayon to identify the contents of the **VAPOCAN.**

NO WASTED FREEZER SPACE. The sturdy, squared, tapered body is engineered to save freezer space. Lids are rimmed for quick, secure stacking. **VAPOCAN** can be used for berries, cherries, vegetables, fruits, chopped or diced meats and even liquids.

ASK YOUR DEALER ABOUT VAPOCAN TODAY

A NEW FREE BOOKLET!

Send *today* for the time-saving new booklet on home freezing.

CONTAINER CORPORATION OF AMERICA
Dept. F, 38 South Dearborn Street, Chicago 3, Illinois

Milk desserts

[*From page 97*]

Maple-Nut Chiffon Pie

Makes 9-inch pie

Soften in 1-quart bowl:
1½ teaspoons gelatine in
2 tablespoons cold water
Set bowl over pan of hot water, and stir until gelatine is dissolved.
Remove from heat; cool slightly.
Stir in **¼ cup sugar**
1 cup evaporated milk
¾ teaspoon maple flavoring
Chill until almost firm.
Mix **1¼ cups graham-cracker crumbs**
⅓ cup soft butter or **margarine**
Press in bottom and on sides of 9-inch piepan; chill.
Melt **1 tablespoon butter** or **margarine**
Add **¼ cup finely cut nuts**
Stir over medium heat until lightly browned.
Remove from heat and cool.
Whip chilled milk mixture with cold rotary beater, or electric beater at high speed, until fluffy.
Put into crumb-lined piepan.
Sprinkle with nuts; chill until firm.

Lemon Sponge Pudding

Makes 6 servings

Sift together:
3 tablespoons nonfat dry-milk solids
¼ cup sifted, all-purpose flour
6 tablespoons sugar
Cream until light and fluffy
2 tablespoons butter or **margarine**
Add **2 egg yolks,** well beaten
sifted dry ingredients
Add **¼ cup lemon juice**
1½ teaspoons lemon peel
¾ cup water
Mix well.
Beat until stiff, but not dry
2 egg whites
Add slowly, beating constantly
6 tablespoons sugar
Fold lightly into egg-and-milk mixture.
Pour into 5-ounce custard cups.
Bake at 325° (moderate) in a pan of hot water for 45 minutes, or until light brown on top.
Chill and serve with **whipped cream.**

Mint-Chip Ice Cream

Makes 2 quarts

Combine **1 cup cold water**
¼ teaspoon peppermint extract
few drops green food coloring
Add to **15-ounce can (1⅓ cups) sweetened condensed milk**
Mix well.
Add **1½ squares unsweetened chocolate,** grated
Whip **2 cups heavy cream**
Fold whipped cream into chocolate mixture.
Pour into refrigerator trays and freeze.
Turn frozen mixture into bowl; beat smooth.
Return to trays; freeze firm. **END**

"I like a kitchen where I can do all my chores..."

Wouldn't you like a kitchen that eliminates the to-and-fro woe of getting around to different chores every day?

You can see at a glance how this kitchen does that.

The lady who works here doesn't have to trudge back and forth on wash day. She needn't trot upstairs to sew. She has plenty of working surface for every chore from cutting patterns to starching clothes. All chore facilities are arranged within reaching distance without crowding or confusion.

All fixtures dovetail so neatly because they're matched to fit together as a complete chore unit. The Crane Kitchen Queen sink, Laundrette laundry tubs, cabinets and appliances go together, everything matches because of Crane planning. That planning includes complete chore-center units in different sizes to fit *your* kitchen area.

Like more information? A free four-page idea folder gives information on the chore-kitchen room arrangement and decoration. See your local Crane Plumbing Dealer. Or write to Crane Co., 836 S. Michigan Ave., Chicago 5.

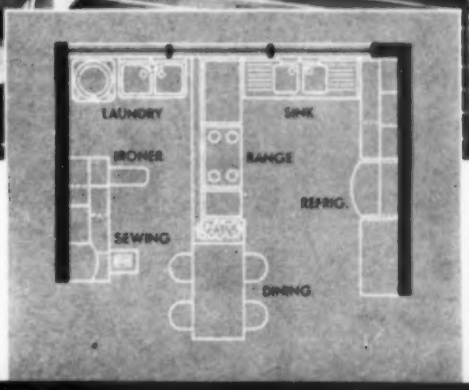
Only Crane supplies the complete water system . . . from pump to faucet.

You can iron—all facilities are grouped so that this chore doesn't take the starch out of you!

You can clean—the Crane Kitchen Queen sink is part of a complete, modern water system.

You can launder—the Crane Laundrette, made of Duraclay, is in style with modern appliances.

You can sew—how handy to just swing out the sewing machine and get on with your new dress!



COME TO **CRANE**

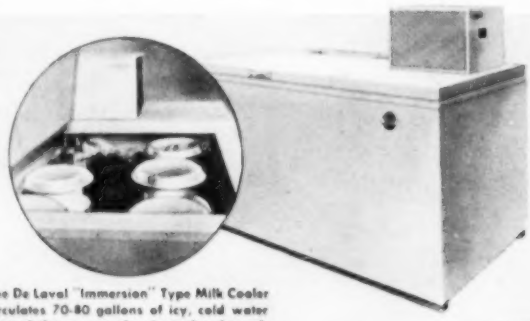
FOR IDEAS

De Laval Speedway "Front-Loader"—cools by automatically spraying icy water over necks and sides of the cans.

FAST COOLING
SAFE STORAGE
QUALITY ASSURED

Thanks to De Laval's principle of cooling with *moving* water, your milk is cooled *rapidly* for better quality milk and lowest cost operation. After cooling, your milk is safely stored with the proper temperature *automatically* controlled. Thus, you have the assurance of *quality* milk regardless of season.

Whether you prefer the De Laval Speedway "Immersion" type or the popular "Front-Loader" Milk Cooler, which eliminates heavy can lifting, you can select a size ideally suited to your needs. Why not solve your summer milk cooling problems now. See your local De Laval Dealer today. Look over the line of De Laval Speedway Milk Coolers—*and get the facts.*



The De Laval "Immersion" Type Milk Cooler circulates 70-80 gallons of icy, cold water around the cans each minute for dependable, economical milk cooling.

De Laval

THE DE LAVAL SEPARATOR COMPANY
POUGHKEEPSIE, NEW YORK
427 Randolph St., Chicago 6, Ill.
61 Beale St., San Francisco 5, Calif.

THE DE LAVAL SEPARATOR CO., Dept. 19-FC
Poughkeepsie, New York
Please send me complete information on:
☐ De Laval Speedway "Front Loader" Milk Coolers
☐ De Laval Speedway "Immersion" Type Milk Coolers
Name .....
Town ..... State .....
R.F.D. .....

Dairy

Look at records closely

It will pay you to look behind that record before buying a dairy cow or bull for your herd, says Larry Johnson, extension dairyman at Michigan State College. A 700-pounds-butterfat cow may not be any better than a 400-pounds-butterfat producer when the record is examined more closely.

You need to know just how the record was made and what the conditions were. For one thing, find out if the record was made on twice- or three-times-a-day milking. A three-times-a-day record is about 20 percent higher than a twice-daily milking record.

Another important point to check is the length of the record. Was the record made in 305 days or 365 days? Here again there's quite a difference. A 365-day record will run 10 to 12 percent higher than a 305-day record.

Age of the cow is important, too. All breed associations have a ratio that they apply to the records of younger cows to convert the figures to be comparable to those for older cows. For instance, an aged cow should give about a third more milk than a 2-year-old.

Another factor is the management the cow or cows received. This is a hard one to figure out, but if a cow is properly fed and cared for she will produce more than she would otherwise.—*W. S., Michigan.*

Bedding made calf sick

The calf (pictured below) was scouring badly and wasn't doing well for Pat Pollock of Jefferson County, Wisconsin. Observation showed the calf was eating filthy bedding, and filling up with this indigestible material. The calf improved

Photograph: Bailey

immediately after an old horse muzzle was applied, as shown, to control its appetite. The muzzle doesn't interfere with drinking, and can be left on until a calf forgets about eating material it shouldn't.

How fat content is influenced

The percentage of butterfat in the milk of dairy cows can be changed considerably, according to experimental work at the Cornell Experiment Station. There are several factors of experimental and

practical importance which vary the fat test of milk.

When certain oils are fed to cows, they have a marked lowering effect on the milk fat. Among these are cod-liver oil and menhaden-liver oil. They not only lower the quantity, but have an effect on the quality of the fat produced. About 5 grams of cod-liver oil per day is enough to lower fat production markedly and also to produce tissue damage to some of the cells of the mammary gland.

The first milk drawn is lowest in fat content. The percentage of fat increases as milk flow increases until the last few squirts. These squirts contain a large amount of butterfat. As the lactation period nears the drying-off stage, the lowered milk flow contains a relatively higher proportion of butterfat.

The season of the year affects the fat percentage. It is often stated that "fat percentage is lowest in August and it increases until January when it starts to decrease again."

Feeding may vary the fat content to a marked degree. One of the important factors is the amount of roughage fed compared to the amount of concentrates. In extreme cases where low amounts of roughages are fed (such as 5 pounds of hay per cow per day, with the rest of the cow's requirements met by feeding concentrates), there has been a marked decrease in fat production, varying as much as 60 percent in some cases.

Another factor is the amount of fat in the ration. There should be approximately 3 to 5 percent fat in concentrate mixes. The difference in production on a 2-percent fat ration and a ration with 5 percent is appreciable and it favors the higher fat ration. Therefore, if dairymen are mixing their own grain rations from home-grown grains, they should check the fat percentage of their ration.

In the spring when cows are turned out on green, succulent pastures, and hay and grain are decreased, dairymen may get a fluctuation in fat content both up and down. This fluctuation varies with different animals. New Zealand farmers, for example, have gotten sharp reductions in fat percent (from 4 percent down to 1.5-2 percent) when their cows were grazing lush, immature oats. The situation can be cured easily by feeding a few pounds of hay each day.

Van Cleve

Old weed sprayer is used by Adam Zimmerman, Clinton County, Illinois, to spray cows for flies. Zimmerman finds it saves time and labor over a small hand sprayer

SAVE HOURS OF WORK with DREFT

Scientific "Floataway" Action gets milking equipment cleaner—without hard scrubbing

● You'll be amazed how Dreft's scientific "floataway" action saves work when washing milking equipment.

Milk pails, strainers, separators come sparkling clean without hard scrubbing. And Dreft saves you valuable butterfat because Dreft rinses milk-scum out of separators, thus preventing formation of milkstone. Bacteria count drops because Dreft removes germs' breeding grounds. Milk quality improves!

No wonder farmers report bigger profits once they switch from soap to Dreft.

Dreft takes the work out of Dishwashing, too!

Here's the easiest dishwashing ever! Simply let your dishes soak in warm Dreft suds for 2 minutes. Then, give a swish of the cloth as you rinse—and dishes shine without wiping. Amazing "floataway" action lifts grease off dishes like magic.

Yet mild new Dreft leaves your hands soft and lovely. Get Dreft today.

Saves work... Saves money

Another Informational Advertisement by Spencer Chemical Company

15-year-old Charles Long (left) of Asbury, Mo. points to the fertilizer treatment which helped him make 112 bushels with his first F. F. A. project and qualify for his county "100 Club." His "Mr. N"—Spencer Ammonium Nitrate Fertilizer—was supplied by his local dealer, Mr. C. F. Witter (right).

Nitrogen Gives Youth 112-Bushel Yield On Dad's "44-Bushel" Farm

15-year old Missourian qualifies for Witter's "100 Club" with first FFA project

40 Bushels is considered pretty fair corn growing in Southwest Missouri around Joplin. So it's small wonder that neighborhood farmers were astonished when a 15-year old youth produced a bumper 112-bushel crop... on a plot that had produced but 44 bushels for his father the year before!

This youngster Charles Long of Asbury, gives much credit for his success to his Vo-Ag teacher, Perry Onstot, and to his dad's fertilizer dealer, C. F. "Chub" Witter of Asbury. Onstot supplied the "know-how" and Witter provided the Spencer Ammonium Nitrate Fertilizer essential to do the job.

Total fertilizer cost on Charles' best plot was $45.33 per acre. However, since it made possible his 112-bushel yield, *net return* per acre was a whopping $157.29!

This 112-bushel yield on his first F. F. A. project qualified young Long for Dealer Witter's "100 Club." Spencer congratulates Farmer Long and Dealer Witter for proving again how nitrogen can turn ordinary corn land into a top producer.

NOTE: Current demand for Spencer Ammonium Nitrate Fertilizer exceeds supply. Your dealer may not be able to fill your order. We are operating our plants 7 days a week, 24 hours a day, and are doing our best to increase output.

At Kansas State College, Dr. H. E. Myers (right), head of Agronomy Dept., discusses a wheat experiment with John Patterson, Spencer's chief agronomist. "Soil organic matter," says Dr. Myers, "should be maintained at as high a level as possible. Principal sources of soil organic matter are crop residues and barnyard manure. Both should be returned to the soil. Important practices for increasing yields in humid areas include crop rotations, manure, lime and commercial fertilizers. Nitrogen is an important nutrient in fertilizers which is needed on many soils."

Spencer Chemical Co.
609 Dwight Bldg.
Kansas City, Mo.

Please send me:

.....'You Can Grow Corn for 25¢ a Bushel"

.....'Nitrogen Timetable" for My State

Name.....

Address.....

SPENCER

Supplies the Nitrogen

Beef cows

[*From page 39*]

the original investment, it costs no more to raise good-quality calves than the plainer kind—and the return per head is higher, too.

How much can you afford to pay for a good bull? Some well-known cattlemen figure the beef producer can afford two to three times his return from a 1,000-pound Choice-to-Prime fat steer. That means the farmer with 8 to 15 beef cows may want a good bull, but will feel that spreading the cost over a dozen or so calves runs the cost per calf too high.

Artificial breeding of beef cows to good beef bulls is available in some localities. Successful artificial breeding calls for a close watch over the herd during breeding season. The farmer who wants his calves dropped in early spring must have his cows bred in May and June. But that's the time of the year when his beef cows are on pasture, and usually away from the buildings. Too, he is busy putting in crops, making hay, and at other jobs that time of the year—so the cows get little attention.

Where available, artificial breeding may be a way out for the small, commercial beef-cow man who wants to use a top-quality bull. Providing he can take the time necessary to watch his cows closely during the breeding season.

Thus, we find quite a number of "just fair" bulls running with beef cows in the Cornbelt. That's why some beef men feel that 20 beef cows is around the minimum size for a side-line beef enterprise on Cornbelt farms.

Ralph Long, Ringgold County, Iowa, has a cow herd about this size—18 Herefords. And his goal is a 25-cow herd. The cows are on his 160-acre southern Iowa farm for only one reason: to market roughage. The 100 head of hogs he raises yearly take all the corn he can produce on the 25 to 30 acres of cornland. That leaves him with permanent pasture and hay to sell.

There's where the beef cows come in. Long carries his spring calves through the winter and sells them as stockers the following March or April. Neither the cows nor calves get any grain. They run on renovated permanent pasture through the summer and clean up the stubble and cornfields in the fall and winter. This feed is supplemented with legume hay, fed out of the stack in the cold weather.

The truth is always popular when it hits somebody else. —*Anonymous*

By wintering over his steers. Long usually hits a better market. Stockers and feeders normally sell higher in the spring than the fall. This grade of cattle is more scarce then, and there's a good demand for cattle to go on grass. Then, too, if a farmer has surplus pasture—or can rent some—he also has the choice of pasturing the cattle and selling them as yearlings in the fall.

Long figures that his hogs will net him the highest return on his corn, that beef cows just won't pay for high-priced grain. And studies made by farm-management specialists at Iowa State College on this subject back him up. [*Turn to page 104*

With Boatswain's Mate Bernard C. Webber as coxswain, a dauntless, 36-foot Coast Guard motor lifeboat removed thirty-two men from the tanker Pendleton's stern off Cape Cod in February, 1952.

WHEN Storm Warnings Are Up

—it's a relief to know the Coast Guard and "Your Unseen Friend" are on the job!

THE glass is low.

The winds and seas are high. And all small boats are ordered into port. All but one . . . a 36-foot Coast Guard motor lifeboat.

She's ordered *out* . . .

And bow up, out she goes . . . she and her "Unseen Friend," Nickel . . . to stand by a tanker in distress.

This dauntless, little 36-footer is propelled by a strong, tough, corrosion-resisting Monel shaft. That's why she's got so much sustained drive . . . why pounding, gale-swept seas can't hold her back.

In this mighty midget, engine mufflers, rudder stock, frame and keel bolts, even tiller ropes are also made of this same Nickel alloy. Thus the service that has "Semper Paratus"—Always Prepared—for its motto makes sure that its motor lifeboats have the rugged strength and corrosion resistance to win the battle against the cruel sea.

On sea or land . . . high in the sky or deep underground . . . wherever there's important work being done, there's Nickel. You rarely see it because it's usually intermixed with other metals to add strength, toughness, corrosion resistance or other special properties.

That is why Nickel is called, "Your Unseen Friend."

The sea's a killer . . . and, for years, Inco researchers have been going up against this killer at its marine testing station in North Carolina, finding out the "why" and "how" of salt water's destructive action on most metals. What they've found to date makes mighty interesting reading as famed novelist Cal Calahan tells the story in his "When Metals Go To Sea." For your free copy, write The International Nickel Company, Inc., Dept. 685a, New York 5, N. Y. ©1952, T.I.N. Co.

The INTERNATIONAL NICKEL COMPANY, Inc.

INCO **Nickel** ...Your Unseen Friend

"Purolator does a real job keeping my tractors going!"

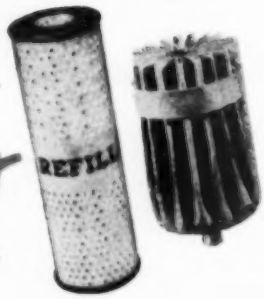
9 of 10 tractors are factory-equipped with Purolator

● Successful farmers the country 'round know how efficiently the Purolator* Micronic Oil Filter traps sludge and abrasives out of engine oil . . . keeps them from damaging costly engine parts. They make frequent, regular filter changes to insure longer tractor life . . . greater tractor dependability . . . fewer expensive repairs.

It's just smart farm management to keep a good stock of Purolator Micronic* Refills on hand. Purolator's accordion-pleated, plastic-impregnated refill gives up to 10 times more filtering area than ordinary filters . . . traps gritty dirt and hard carbon you can't even see.

*Reg. U. S. Pat. Off.

P.S. Put fresh Purolator Refills into your trucks and cars regularly, too. It's low-cost "insurance" against expensive engine repairs.



PurOlator

(ENGINEERED FOR EVERY MAKE OF TRACTOR, TRUCK AND CAR)

Micronic OIL FILTER

Beef cows

[From page 102]

Farmers who carry their cows on permanent pasture, crop residues, and poorer-quality hay make the most money. Beef cows are not efficient at converting high-quality crops into income. What's more, cows can't pay for high-cost overhead in buildings and equipment.

Many farmers make the mistake of wintering their beef cows too well. They like to see them come through the winter fat and sassy. The extra feed needed to do this makes the cow look better—*but it doesn't necessarily make a better calf.* And this practice certainly adds to the cost of the calf.

Of course, a farmer can carry this to the other extreme. Beef cows should receive sufficient feed during the winter to keep them in thrifty condition. Otherwise, they may be unable to produce strong calves and provide them enough milk.

If the cow was on good pasture and goes into the winter in good condition, she might well lose 50 to 100 pounds during this period. She wouldn't seriously affect herself or her calf. However, the farmer cannot afford to let his cows go too far in this direction—so that they become too thin, rundown, and generally unthrifty. This may mean weak calves at birth, low supply of milk, and, as a result, lighter calves at weaning time.

Beef cows do not need a large amount of high-quality roughage. They will do quite well on low-cost rations during the winter. In the Cornbelt, where a cow herd must be on dry feed about five months, a total of 1,300 to 1,500 pounds of digestible nutrients is needed in the winter. The ration shouldn't contain more than 8 percent digestible protein.

This means a 1,100-pound pregnant beef cow can be carried through the winter cheaply with 1,100 pounds of clover hay, 1,500 pounds of corn stover, and 500 pounds of oats straw. This ration meets the minimum protein and nonprotein needs. You could winter the same cow on 2,800 pounds of Choice alfalfa hay. But compare the cost of the two rations. The second ration would cost nearly twice as much as the first.

Spring calving permits the use of a cheaper and lower-grade ration during the winter. You can produce nice calves in the fall months; and you have more time during the late fall and winter to take care of the cows and calves. But the extra feed needed in the winter more than offsets such advantages.

When calves string out throughout the year, as compared with spring calving, the feed requirements per cow are much higher. A group of southern Iowa farmers who kept records a few years back found the cost of feeding averaged $27.40 per cow in herds where calves came throughout the year. This was $10 more per head than in herds where calves came mostly during the spring months.

Feeding some of the beef cows a milk-producing ration during the winter is an expensive business. What's more, the calves are strung out and aren't ready to go into the feedlot or ready for sale at the same time.

Considering the cow herd alone, about 40 percent of the year's feed and pasture costs comes during the four or five winter

months on southern Iowa farms. During the same winter months, about half of the total labor put into a cow herd plus a large share of the building expense is used.

Carl Ehm, Union County, Iowa, is another typical example of a farmer following a beef-cow program. His farm has some permanent pasture. Here's where his 25 beef cows graze in the summer, then go into the cornfields after picking.

The calves are fed out the following summer on alfalfa-brome pasture—along with 25 more calves he buys each fall. This gives Ehm a good-sized cattle feeding program. But with only half of the price risk that faces the average feeder who buys all his calves to feed out each fall.

The larger beef-cow herds usually are found on the big, rough farms, or farms with a large acreage of natural pastureland. Take the case of Charles Bennett, who lives near Mount Ayr, in southern Iowa. Bennett farms 360 acres, about half of which is in grass. He has 43 Shorthorn cows and 85 ewes. Cows work well with sheep on a big farm, he figures.

The big job on a farm like Bennett's is to sell the roughage. For most farmers, that means a beef-cow herd. It takes more money to swing a cow herd, but the risks are lower year in and year out than in buying steers to graze, Bennett believes.

This last point appeals to Bennett. His cows calve in the spring. (He breeds for April calves.) In late August, he starts to creep-feed the calves, then pushes them along in dry lot for the early June market. That gives him a hay-pasture-corn-using program.

Here's a case where beef cows didn't fit. Wayne Simington lives on a level, productive 400-acre farm near Spencer, Iowa. He had 40 beef cows. But this year he sold them out in favor of purchasing his feeder calves.

Simington's pasture is all high-quality alfalfa-brome. He found that the 40 cows did not net him a high enough return on such pasture. His returns per acre from the cows' calves on pasture were much better. What's more, he needed a program which marketed more corn. So he abandoned his cow herd in favor of feeding more calves.

Suppose you decide that a beef-cow herd fits your farming program. Should you start with heifer calves, yearling heifers, or cows? If you start with cows, you can clip a dividend the first year. But you will also need more money as a first investment. Yearling heifers and calves take less total money invested per head. However, the younger the female stock you start with, the longer it will be before you can reap dividends. But if you must borrow money, or use credit, it may be best to buy heifer calves and keep down investment and interest.

There's a place for beef cows on many Cornbelt farms today. It's not a question of whether beef cattle can compete with the range in producing calves. Rather, can beef cows compete with other livestock—and with corn—on the acres right on your own farm?

Many farmers can add grass to their rotations and still increase total output from their farm. Others have permanent pasture, crop residues, and low-quality roughage to sell. Beef cows and calves may be the best way to sell roughage. **END**

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THAT's right—not 6 months—not 12 months, *but 2 whole years!* That's the kind of guarantee you get from Armstrong—one of America's oldest tire manufacturers! Armstrong Tractor Tires are brutes for punishment! Rugged Rhino-Flex construction gives extra pulling power, withstands brutal farm wear and tear. Open bars keep tires mud-free. The great name in tractor tires is Armstrong!

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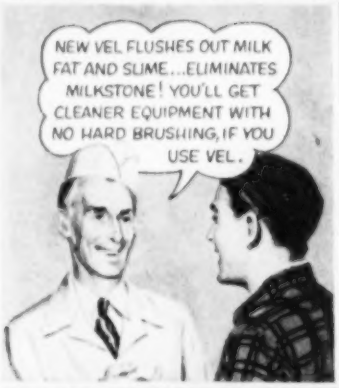

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BUY ECONOMY SIZE VEL FROM YOUR GROCERY DEALER

Latest "know-how" in foods

Your market basket of new products and new research

Another old prejudice discredited: The theory that fried foods are harmful for children has not been proved. Instead, there is evidence that properly fried foods may be given youngsters without worrying about harmful effects.

When you overcook meat, you're automatically increasing meat costs and spoiling the good flavor of the meat. When a cut of beef round weighing 10 pounds is "pot-roasted" for 1 hour after it reaches the well-done stage (about 190 degrees internal temperature), 2 or 3 portions of meat are lost. When meat is cooked for this extra hour, flavor, appearance, and aroma deteriorate. Be economical and cook your meat just long enough and no longer.

Here's something new in peanut butter: New flavors of peanut butter which are being tested are chocolate, maple, and orange. One idea is to stuff peanut butter of stiff consistency into casings which are linked to form large sausages. In this form the product is sliced, and the pieces are eaten on bread and crackers.

Large amounts of protein in the diet may help undernourished victims of shock, burns, and surgery to regain their health more swiftly, according to recent research.

Save those vitamins! More of the B-vitamin content of pork chops is saved if they are cooked in the frozen state rather than thawed before cooking, according to research by workers from the Idaho Agricultural Experiment Station.

Lard, the all-purpose shortening, is also a source of essential acids which contribute to the health of the skin.

Atomic energy and food. A revolutionary way to preserve food, using atomic radiation, has been developed at the University of Michigan Engineering Research Institute. Radioactive cobalt is used in this preservative process. Beefsteak was exposed to gamma rays of cobalt. After three weeks of storage at room temperature, the meat showed no outward change in appearance, nor did it have an unpleasant odor. Meat that had not been exposed to these rays showed breakdown of tissue after 48 hours at room temperature. END

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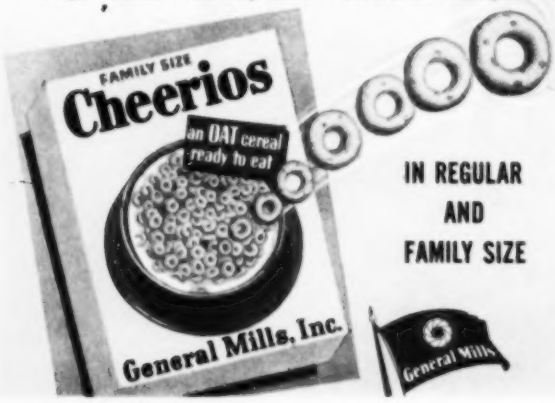

IN REGULAR AND FAMILY SIZE

General Mills

THE Farm

By Gus Larson

Do big cows pay better than small ones? At what stage of married life do farmers spend most for family living? What animal builds a pantry in its den? Interested? If so, let's get on to Question 1.

Score 5 points for each correct reply. If you score (a) 90 to 105 points—excellent. (b) 75 to 85 points—very good. (c) 50 to 70 points—passed. (d) 45 points or below—sorry.

1. Bees with red, brown, blue, and buff-colored eyes were bred by a California physiologist. What would you say is the natural color of bees' eyes? (a) black (b) yellow (c) green.

2. To protect his wife's vegetable garden from dogs, Joseph Glidden, De Kalb, Illinois, invented barbed wire in the year (a) 1900 (b) 1873 (c) 1856.

3. For centuries folks have wondered if the universe is still expanding. Would scientists most likely answer (a) it seems to be (b) it is not (c) there is no evidence to support this theory?

4. If a cow (after calving) is sleepy, wobbly, or excitable, it may mean she has (a) a very bad cold (b) hypertension (c) ketosis.

5. Presidents of the United States once took their baths in wooden tubs, too. The first running-water bathtub in the White House was not installed until (a) 1855 (b) 1901 (c) 1877.

6. There is a great deal of argument over where corn originated. Would you say (a) corn was born in South America (b) no one really knows where corn first grew?

7. The new "wonder" drugs have saved many human lives. Research now shows that these drugs (a) have no value in treatment of plant diseases (b) show promise for plant-disease control.

8. When do farm families spend most for family living expenses? Is it at (a) 15 to 19 years of marriage (b) 5 to 10 years of marriage (c) 10 to 15 years of marriage?

9. Do your lambs make hogs of themselves? They may have overeating disease. This can be controlled by (a) penicillin (b) vaccination, and plenty of bunk space and hay (c) X-ray treatments.

10. In 1919, United States farmers harvested 364 million acres of cropland. Since that time, harvested acreage has never exceeded the 1919 level by as much as 2 percent. (a) false (b) true.

11. How many hours old must a baby pig be before it will try to find the warmest spot in the pen? (a) 4 hours (b) 6 hours (c) 12 hours.

Quizbox

12. What animal builds a pantry in its den and then stores meat for winter snacking? Would you guess the animal to be the (a) mole (b) fox (c) woodchuck?

13. How many acres of harvested food and feed crops does it take to feed one person for a year in the United States? (a) 1.8 acres (b) 5 acres (c) 1 acre.

14. What famous American engraved and printed the first money in the United States? Was it (a) Benjamin Franklin (b) John Randolph (c) Paul Revere?

15. To put 50 pounds on a 200-pound hog will take 4.5 bushels of corn. How many bushels of corn will it take to put 50 pounds on a 275-pound hog? (a) 4.5 (b) 5.5 (c) 4.9.

16. You can tell a good steer by looking in its face. A barrel-shaped face on a steer means the body of the steer will be (a) well shaped (b) poorly shaped.

17. There are ways to eliminate food odors in your refrigerator. Which of the following would you recommend? (a) place orange rind inside (b) place piece of charcoal inside (c) leave refrigerator door open slightly.

18. A new chemical spray to control weeds in strawberries (without damage to plants) was recently announced by the U.S.D.A. It is called (a) EH-1 (b) Strawco (c) F-12.

19. Herdsman John Svelte said: "Big cows pay better than do small cows." Sven Oakleaf argues: "Small cows pay better than big ones." Who is right? (a) John (b) Sven.

20. Bats occasionally fly into the hair of human beings because (a) bats can't see (b) bats see with their ears and are looking for a place to hide.

21. Soybeans mulched with corn stover will outyield unmulched beans by (a) 1 bushel to acre (b) 10 bushels to acre (c) 4 to 6 bushels per acre.

Answers on page 113

"I don't blame 'em for wanting to stay here"

Step under an Alcoa Aluminum Roof on a hot day. You'll notice what tests have proved. It's cooler under an aluminum roof because aluminum reflects hot sunshine.

If you raise poultry, you can look at this even temperature in terms of profit. Flocks are more contented. Egg laying is better. If you dairy farm, or raise livestock, you know that a more even temperature in the barn encourages greater milk production and faster gains.

There is still another quality which aluminum gives you. It defies the weather, resists corrosion and practically eliminates upkeep. Once Alcoa roofing or siding is up you can forget it.

Have a look at your buildings and see if they don't need an Alcoa roof that will take care of itself . . . and better care of your stock. There is an Alcoa dealer near you who can give you additional information.

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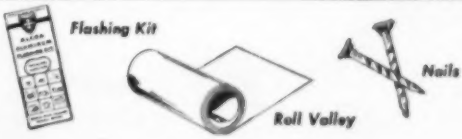

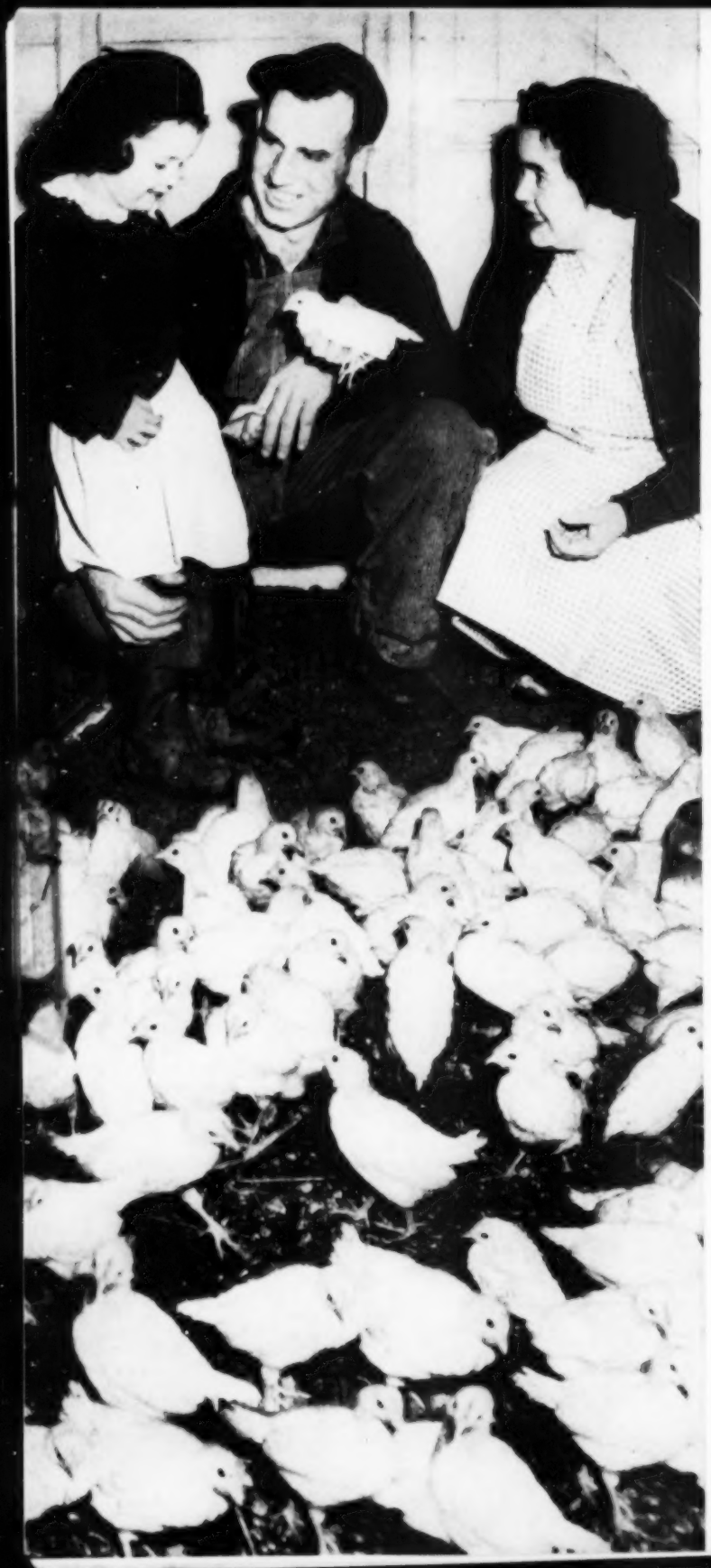

William Lally is a farmer's farmer. *He owns and operates 114 acres, milks from 16 to 20 cows, sells Grade A milk, and buys and feeds about 110 feeder pigs each year. He farms for profit, and one of his best profit makers is his poultry. He wants his pullets to be mature, well-developed birds when he houses them. If not, he says, he's courting trouble. Mighty interested co-operators are Mrs. Lally, and daughter, Alice, 4.*

William Lally says—

"We Push Pullets Fast to Get Peak Fall Egg Prices —With MoorMan's"

"We've fed MoorMan's poultry concentrates four years," says William Lally, Dane County, Wisconsin, "and know we can depend on their good results to pay us big dividends. We can point pullets for high production in 6 to 6½ months and get them there right on schedule.

"This year we'll house pullets before Sept. 1, so they'll produce at 60-65% 2 or 3 weeks later. We started our chicks on March 11 on our own corn and MoorMan's Chick Mintrate to give them a fast start. At 10-12 weeks we'll switch to MoorMan's Poultry Mintrate 40, and keep them growing and developing fast.

"Last year *our pullets were laying at 60 to 65% in 6 months. And even though we didn't start our chicks until April 18 we still got in on part of the 69 and 70-cent egg market because we pushed them so fast. Their total feed costs, figuring corn at $1.65 a bushel, was only $1.55 for housing each of our 279 pullets. We got $1.35 each for the hens we sold to make room for the pullets.*

"Profits from our hatching eggs average even bigger. I really think the vitamins, minerals and proteins in Poultry Mintrate give extra-good hatchability. Our hatchery pays a 20-cent premium, and we're among the first to sell them eggs in January and the last to be cut off. Last year our hatchability was excellent and production averaged between 70 and 75%."

You, too, like William Lally, and thousands of other farmers, can benefit from high fall egg prices—if you keep your pullets growing fast *now*. Don't let them loaf during the growing period. Your total feed cost will be low, because your home-grown feeds contain what it takes to develop pullets extra fast.

Here's why: The powerful protein-mineral-vitamin balance in MoorMan's Poultry Mintrate 40 or Chick Mintrate helps unlock the great growth and quick maturing power of your own grain and range. Ask your MoorMan Man to explain the low-cost MoorMan feeding plan. If no MoorMan Man calls, write Moorman Mfg. Co., Dept. 154, Quincy, Illinois.

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Build them yourself, save time and dollars

Photograph: McCain

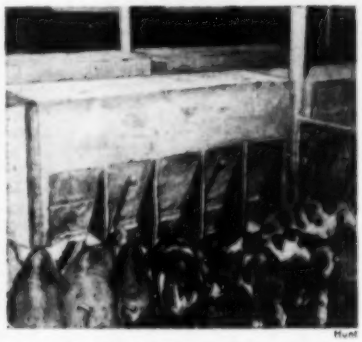
Bale silo was erected by Raymond Wonderlin, Chenoa, Illinois. The bales were laid in a circle, one on top of the other. Sixty-five steel bands were used to hold the bales in place. The silo was filled with 100 tons of an alfalfa-timothy-red clover mixture

Kranick

Chopped-hay elevator was made by building a steel cover to fit on an ordinary grain elevator. The cover holds the chopped hay down against the cross-pieces on elevator. Cover slot lets the operator see the hay. Built by Frank Bradley, Racine, Wisconsin

McVicker

Box-stall hay manger is made from a few pieces of pipe. Harvey Cornwell, Haywood, Virginia, bored holes in top and bottom 2x4s and fitted pipes in holes before nailing



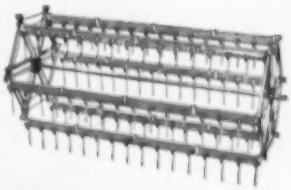
Hunt

Self-feeder is installed as permanent equipment in Minnesota Experiment Station hog house. The feeders form the front of the hog pens and are filled from the alleyway. These self-feeders save carrying the feed to the pigs every day

Costello

Boxcar granaries on concrete supports keep stored feed away from rats and moisture on the Louie Dinner farm, Greeley, Colorado. Loading and unloading boxcars is easy, since the doors are at truck-bed level. The boxcars are lined with metal roofing material. This makes them grain-tight, and also prevents moisture damage

don't wait 'till grain goes down



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"**Anywhere** from Maine to California, families may sit **down** to eat good bread made from this wheat of mine. That's because we have railroads – to carry my wheat to the mills and then take the flour anyplace in the country. And in providing this big, wide market for us farmers, the railroads help see that the country's well-fed, too!"

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The railroad freight car carries the farmer's rich and varied produce to every corner of America, thus giving him a truly nationwide market.

So it's good news for farmers everywhere that today the average freight train is carrying more freight and carrying it faster than ever before! This is a record that surpasses even the peak of World War II by almost 25%.

Of course this record didn't just happen. In the past six years the railroads have spent over 6 billion dollars on improvements and new equipment of all kinds: 400,000 new and better freight cars – 14,000 new and better locomotives – improved tracks, signals, yards and repair shops.

This continuing billion-dollar-a-year improvement program will enable farmers and railroads to do an even better job of supplying America with the food, feed and fibre it needs to stay strong and free!

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**Stores with home planning specialists.*

Answers to farm quizbox

[*Questions start on page 108*]

1. (a) is correct. Bees generally have black eyes.

2. (b) is correct. Glidden got his idea for barbed wire from rosebush thorns.

3. (a) is correct. Sky survey now being made by California Institute of Technology may answer this question.

4. (c) is correct. Cows that have calved recently are most likely victims, reports Dr. R. D. Hatch, University of Illinois.

5. (c) is correct. White House bathtubs with running water were installed in 1877.

6. (b) is correct. The Smithsonian Institution recently said: "Original home of maize is a greater puzzle at present . . . than ever before."

7. (b) is correct. U.S.D.A. scientists report that streptomycin sulfate is effective in controlling halo blight in beans.

8. (a) is correct. Peak for farm-family expense comes in 15-to-19-year period of married life, according to Ruth C. Freeman, University of Illinois.

9. (b) is correct. Dr. P. D. Beamer, University of Illinois, recommends this treatment for overeating disease.

10. (b) is correct. Harvested acreage since 1919 has never exceeded the 1919 level by more than 2 percent.

11. (c) is correct. U.S.D.A. reports a baby pig needs heat right on it for first 12 hours.

12. (b) is correct. Donald Culross Peattie writes that the fox builds pantries in dens.

13. (a) is correct; 1.8 acres will feed one person for a year.

14. (c) is correct. Paul Revere engraved and printed the first American money.

15. (c) is correct. Harry G. Russell, University of Illinois, is our authority.

16. (b) is correct. Barrel-faced steers generally have poorly shaped bodies.

17. (b) is correct. A piece of charcoal will absorb food odors.

18. (a) is correct. U.S.D.A. tests show EH-1 does not leave off-flavors, -colors, or malformation of berries.

19. (a) is correct. United States testing records show large cows return more above feed costs than do smaller cows.

20. (b) is correct. Bat is looking for a place to hide.

21. (c) is correct. Purdue University tests produced these results by corn stover mulching. **END**

Albert Kipfer, Menominee County, Michigan, believes so strongly in soil conservation that when he recently sold his farm he made the contract provide that the buyer continue the soil-conserving practices which he had started.

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• **IMPROVES FLOCK CONDITION.** Provides important milk vitamins and minerals. Helps birds fight off disease. Tones them up so they get more out of their mash and grain.

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Patented piston action picks entire windrow up clean, without wrapping, clogging or shelling. Light, and easy to attach. Stiff and spring finger models to fit most combines.

INNES FEEDER for full length threshing cylinder. Separates and smooths out toughest windrows. You travel 1/3 faster, save up to 50% more grain. *All Innes products are precision-built of finest materials. A responsible firm, Innes Company stands behind every purchase.*

See your dealer, or write Innes Co., Bettendorf, Iowa.

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RELIEVES PAIN OF HEADACHE · NEURALGIA NEURITIS

FAST

The way thousands of physicians and dentists recommend

Anacin® relieves headache, neuralgia, neuritis pain fast because Anacin is like a doctor's prescription—that is, Anacin contains not just one, but a combination of medically proven, active ingredients in easy-to-take tablet form. Thousands have been introduced to Anacin through their own dentist or physicians. If you have never used Anacin, try these tablets yourself for incredibly fast, long-lasting relief from pain. Don't wait. Buy Anacin today.

STOP PAIN INSTANTLY

COMBAT INFECTION

PROMOTE HEALING

WITH SOOTHING

Campho-Phenique

(PRONOUNCED CAM-FO-FIN-EEK)

USE IT FOR

FEVER BLISTERS

COLD SORES,

GUM BOILS

Not only do fever blisters heal faster, but the same thing happens when Campho-Phenique is used on cold sores, pimples*, gum boils. Wonderfully soothing too, for minor burns, insect bites, poison ivy. And Campho-Phenique is a highly effective, pain-relieving antiseptic for minor cuts and scratches from paring knives, can openers, tin cans, etc. It doesn't stain the skin. Get a bottle today.

*Externally caused

"Poor" farms

[*From page 33*]

A poor tenant has too little equity for ordinary credit on ordinary terms. He needs long-term credit to make a good farm. But without secure tenure, he cannot get it. Then, if he did get it, he would not use it economically without somehow developing superior management skill. Thus, management skill without capital leads to waste of labor; but loans to farmers without management skill lead to waste of capital.

Let us look a little closer at this management problem. Science began to change traditional agriculture some 175 years ago, gradually at first, and now with ever-increasing tempo. Most of the improvements have been made on individual parts of the farming system. High-analysis fertilizers, the modern tractor, disease-resistant cereals, hybrid corn, and new grass-legume pastures are examples.

The skillful farmer fits these into his going system. Recently, the really big increases in farm efficiency have resulted from *combinations of several practices.*

We may take a simple illustration of very recent research on corn. Hybrid corn gives an increase in yield. Proper fertilization at planting time gives an increase. Extra nitrogen fertilizer in mid-season gives another increase. We can expect 5 to 10 bushels of increase per acre for each of these. But if they are all done and the plants more closely spaced and water conserved, too, the yields may go from something like 25 bushels per acre to well over 100. Thus, the big increase comes from the interaction of the separate practices. This same principle applies to the whole farm. *The lack of skill in managing these interactions is the basic difficulty on the majority of poor farms.*

A fair share of their failure goes back to the way recommendations are given to farmers. Traditionally, research and extension have dealt with the *individual* practices. *Separate* bulletins and demonstrations explain how to grow tomatoes, how to feed pigs, and so on.

Some aspects of the poor-farm problem have long been recognized. Congress has supported special programs for farm purchase by tenants; and other programs have provided supervised grants and loans to farmers not able to get ordinary commercial credit. These have helped a large number of individuals, but not more than a tiny fraction of the total.

Yet, we should not minimize what has been done. Agricultural research is moving in the direction of studying *whole* farms. With pilot-research farms, it is possible to test *combinations* of practices as well as individual ones. What impresses the poor farmer above all else is to see a whole-farm demonstration on a farm about like his *run by a man about like himself.*

How can we solve the poor-farm problem? We know that it cannot be done by a credit program, by an extension program, or by land reclamation alone. *Nor can it be done by a combination of programs just within agriculture itself.*

A rural employment-advisory service should be the first step. To the usual functions of an employment office should be added those of counseling. Families could have presented to them all the alternatives for employment as well as the opportunities in agriculture. Perhaps some families need help to decide first that it is possible for them to find better and more rewarding opportunities.

For those who should remain in farming, part may be helped to establish themselves on good farms as owners, either by transfer or by improving the ones they are on. Another group may be best off as farm tenants. A third group may find good jobs on commercial farms. Many who do not have talent for managing a whole farm can earn good incomes as skilled laborers on efficient farms.

A great deal of experience has been had with both employment services and family counseling. *These need to be combined into a single service that can deal with employment opportunities generally,* in both agriculture and industry, with offices in communities having much unused labor.

Now, when labor is short, is the time to initiate such a guidance program. Little can be done in depression times when jobs are scarce.

As the second step, a farm-management service is needed to help those who plan to farm become good farmers. It would deal specifically with those deciding to remain in farming after counseling with the employment-advisory service. In contrast to most ordinary extension work with farmers, this farm-management service would deal with the whole farm, to help the farmer fit the various parts together into a working system.

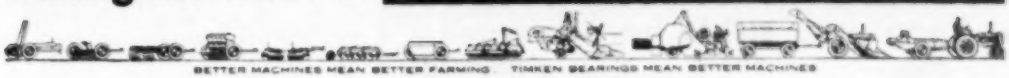
Farming as tenants is actually better for many families than ownership, especially when they are just getting started. The financial requirements for both land purchase and land improvement are too great. *Tenancy itself* is not bad, but some *systems* can be very bad—bad for both tenant and landlord. Yet, under good contracts, both benefit from the long-time planning and investments that raise the farm to a high level of efficiency.

New good land can be developed. Unused or little-used soil of good quality can be improved, both within farms and for entirely new farms. This may be done in two ways. First, help bring little-used soil on existing small farms to a good state of production. Second, new farms could be developed from responsive soil through clearing and heavy initial fertilization in essentially the same way as the Bureau of Reclamation now improves soil through irrigation.

Effective credit is needed to meet the special requirements of both owners and tenants making the change from poor farms to good farms. A change from a poor farm with a simple cropping system to a good farm with a complex crop-livestock pattern requires capital. Credit is needed on a long-term basis at low rates. Thus, the availability of the credit should be one of the "tools" of the farm-management service. It is, frankly, supervised credit in the sense that it would be available at low rates while the family developed its skill and a farm plan within which the money would be well used.

What is proposed here is new only in the sense of combining the employment-counseling service and a farm-management service, supported by improved landlord-tenant contracts, credit, and land reclamation. All of these things—individually—have been done. We have the skill to blend them into the kind of program that is required, and it is urgent that we begin the job at once. **END**

Making the most of MECHANIZED FARMING



BETTER MACHINES MEAN BETTER FARMING . . . TIMKEN BEARINGS MEAN BETTER MACHINES

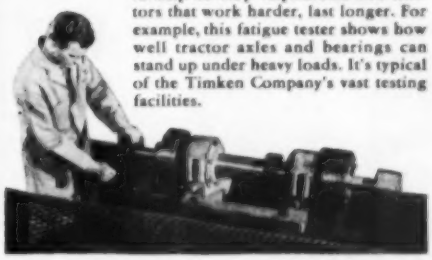
1. "LITTLE DAM MAKER" GIVES EACH PLANT OWN RESERVOIR, PREVENTS EROSION

To give every one of his row-crop plants its own water-retaining reservoir and to prevent erosion, a South Dakota farmer invented this little dam maker. Two wooden blades are mounted on a wheel attached behind the tractor or cultivator. As the wheel turns, one blade holds back the soil and builds up a small mound of dirt. The pressure trips the wheel which rotates half a turn before the other blade repeats the damming process. Result: a series of dams, 6 inches high, that catch and hold rain, prevent it from carrying away top soil.

This is just another example of how mechanization is creating more profits for the American farmer. To help you make the most of mechanized farming, leading implement manufacturers mount moving parts of farm equipment on Timken® tapered roller bearings. With Timken bearings, equipment is ready to go when needed. Maintenance and lubrication time is cut. Breakdowns are prevented, towing speeds increased.

2. FATIGUE TEST HELPS TRACTORS WORK HARDER

Engineers of The Timken Roller Bearing Company work hand in hand with farm machinery manufacturers to help develop implements and tractors that work harder, last longer. For example, this fatigue tester shows how well tractor axles and bearings can stand up under heavy loads. It's typical of the Timken Company's vast testing facilities.



3. ROLLER PROTECTS END GATE

Here's how Farmer Ike Dent of Humeston, Iowa, prevents the elevator of his corn picker from damaging the end gate of his wagon. He mounted an old binder roller just above the top edge of the end gate to make a rolling contact with the elevator when crossing ditches.

$10 FOR IDEAS: Do you have an idea like this on making the most of mechanized farming? We'll pay $10 for each idea that we accept and publish. Send photo of implement and description to the Timken Company, Dept. SF-6, Canton 6, Ohio.

4. HOW TO CHECK ON VALUE WHEN YOU BUY

The best way to be certain you're getting the most for your money when you buy an implement or tractor is to make sure it's equipped with Timken tapered roller bearings. Timken bearings keep moving parts in proper alignment, reduce wear, practically eliminate friction. Always look for the "Timken Bearing Equipped" label. It stands for top value. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

Tapered Roller TIMKEN BEARING EQUIPPED

This symbol on a product means its bearings are the best. Look for it when you buy.

NOT JUST A BALL ○ NOT JUST A ROLLER ▭ THE TIMKEN TAPERED ROLLER ▭ BEARING TAKES RADIAL ⊕ AND THRUST —⊕— LOADS OR ANY COMBINATION ✳

CUT GRASS SILAGE *FASTER*

...Keep your sickle bars sharper

with the

LANTZ SICKLE GRINDER

REG. U.S. PAT. OFF.

● This low-cost, sturdy machine grinds sickle bars one to seven feet long . . . produces a uniform edge, maintains proper bevel . . . extends life of sickle. Keeps sickles in tip-top shape . . . speeds up grass and weed-cutting jobs. Successfully used for over four years by farmers, ranchers, county highway and park maintenance men.

ONE MAN OPERATES IT — No skill is required to operate the Lantz Sickle Grinder. Grinding stone is mounted in a swinging arm . . . grinds coming and going. Spring-loaded table keeps sickle section against stone. Two stones of different angles are available.

Grinder is drilled for mounting on wall or bench. Available with electric motor . . . or can be used with gasoline engine for field work.

WRITE for descriptive literature today. Built by the manufacturers of Lantz Kutter-Kolter and Flexible-Grapple Hay Forks.

LANTZ MANUFACTURING CO., Inc., Dept. S-22, Valparaiso, Ind.

BUY SUCCESSFUL FARMING BOOKS

Made especially to clean Toilet Bowls

No cleaning in your home is more important than the toilet bowl. That is why you should use Sani-Flush, made for this one purpose. It cleans thoroughly, leaving the bowl sanitary and sparkling. It disinfects as it cleans.

Follow simple directions on the yellow can. No work. No messy scrubbing. Sold by all grocers and other leading retail outlets. The Hygienic Products Company, Canton 2, O.

Sani-Flush

Now **PERFUMED** with a mild, fresh fragrance

PAINT RIGHT THE FIRST TIME

GET FREE BOOK full of experts' tips. Tells what aluminum paints to use inside and out. How to brighten rooms, protect equipment. Can save you dollars. Write for "Paint it Bright."

Aluminum Company of America
1715F Gulf Bldg., Pittsburgh 19, Pa.

WET WALLS, BASEMENTS?

COPROX, New Patented Copperized Cement Compound, Unites Chemically with Porous Masonry to Help Seal Seepage Out

NEW YORK: A new compound containing copper oxide and Portland Cement, called COPROX, has been perfected which helps seal out water from porous masonry walls when applied *inside* or *out*, above or below ground.

Different from all other so-called waterproofing compounds and paints, and protected by U.S. Patent, only COPROX has its exclusive copperized action, a unique three-way action that (1) *penetrates* the microscopic pores of the masonry surface, (2) *expands* to fill pores with an insoluble, non-absorbent copper oxychloride plug which (3) *bonds* both chemically and mechanically with masonry, to withstand water pressures up to 500 pounds per sq. ft., in actual tests on cinder block as thin as 12 inches, and yet permits breathing.

Unlike ordinary cement coating compounds, COPROX is guaranteed to contain no fats which are broken down by the lime in cement, or iron which ultimately rusts out completely.

COPROX is mixed with water, applied with a stiff fibre brush. It hardens into a stone-like surface on clean porous concrete, cement, cinder block, cement stucco, unglazed brick and porous natural stone. It is recommended for foundation walls, basements, storage tanks, garages, swimming pools, fish ponds. Costs less than the best oil paint. $3.25 a gallon. Prices slightly higher west of Rockies. Five beautiful decorator's shades. Simple to apply. Available at paint, hardware and department stores. COPROX, INC., 1270 SIXTH AVE., NEW YORK 20, N. Y.

Laughing at Life

Mere Formality

A post-office employee advises us that he recently handled a parcel marked: "Attention Postmaster! Exposed Safety Film. Please Open for Postal Inspection in Total Darkness."

Moppet's Alibi

In a 4-H summer camp, the boys turned up neatly scrubbed, brushed, and shining for Sunday dinner. The polish soon wore off in horseplay and games, however. So before dinner the counselor reminded them of camp procedure and sent them to the washroom with the usual stern advice about washing hands and combing hair.

One small boy, among the last to return, passed inspection on hands, but his hair was in violent disarray and the counselor pointed out this omission.

"I'm sure I combed it," the boy insisted. Then, pausing reflectively, he added: "But there were so many heads in that mirror I could have combed the wrong one."

• • • • • • • • • • • • • • • • • •

The Error of Our Ways

(*Culls From the News Columns*)

We Don't Blame Him

Hans Conreid, the character actor who plays Professor Kropotkin in "My Fried Irma," has found an escapist hobby.—*Greenville (Pennsylvania) Record-Argus.*

Wigmakers Take Note

Maurice's recipe for well-groomed hair is simple. Have it out at least five times a year.—*Toledo (Ohio) Blade.*

And Rode Him Down?

A ladder demonstration was also given in which firemen carried a horse to the top of the ladder.—*Hopewell (Virginia) News.*

SUCCESSFUL FARMING

"You gave *me* two baths—that's what happened."

EVERYBODY

wants HOT water

Heat it 3 times faster with

LP-GAS!*

No single convenience does so many things for all the family as automatic hot water. *Everybody* wants hot water—often all at once!

Good reason to have plenty of it—and that means LP-GAS. LP-GAS heats water *three times* faster than electricity . . . so, with gas, a smaller, less expensive water heater does the job. You have all the hot water you want 24 hours a day.

Use LP-GAS to operate a new automatic gas range . . . a beautiful gas refrigerator . . . a gas clothes dryer . . . a gas incinerator . . . and to heat your home. And, remember, with gas there are no costly installation charges.

Ask for the fuel you know as bottled gas, tank gas, butane, propane, or by a local trade name. They're all Liquefied Petroleum Gas, that brings better living anywhere. You can store this fuel and always have plenty on hand. For *approved appliances* and *best service,* see your LP-GAS dealer.

Better Farming, too! LP-GAS for tractors gives smooth, even power . . . burns clean . . . reduces maintenance costs. Your present tractor can be converted or you can buy a factory-built model.

Live better with... LP GAS *millions of families already do!*

THE MODERN FUEL
Wherever you are

Free Booklet Tells How—
Inside facts on how you can get all the advantages of modern living . . . wherever you live . . . with convenient LP-GAS. No charge—just mail the coupon today!

LP-GAS Information Service, Dept. SF,
11 South La Salle St., Chicago 3, Illinois.
Please send the *Better Living* booklet to:

Name_____

P. O. Box_____

Town_____ State_____

give the girl Credit

These daughters certainly bring new ideas into the house—break the ice of old habits, so to speak. For instance it's ten-to-one that your daughter discovered Tampax before you did—*Tampax*, that improved method of sanitary protection (worn internally).

Perfected by a doctor, Tampax needs no belts, pins or bulky outside pads. It really represents a highly modern idea in monthly protection—helps take the pressure off your mind at "those times." With Tampax there's no worry about odor or those revealing edges or ridges that you see showing through other women's skirts or dresses. Your social poise is sure to improve when you wear Tampax.

Daintiness is the key word for Tampax—from the slender white applicator (you needn't touch the Tampax!) all the way through to the final disposal. Pure surgical cotton provides unusual absorbency. . . . Sold in 3 sizes: Regular, Super, Junior. Full month's supply may be carried in purse. . . . Tampax Incorporated, Palmer, Mass.

Accepted for Advertising by the Journal of the American Medical Association

Sundress season

Summer is fun, if you're dressed for it! But nothing is more unbearable than a too-warm dress on a hot summer day. This season there is no excuse for heavy, uncomfortable clothing. In every size range there are eye-catching dresses especially styled for warm-weather wearing. The graceful pinafore with its smart little bolero jacket, the shoulder-tie sunback dress, and the full and straight jumpers are but samples of the wonderful patterns for your summer sewing.

This group of outstanding patterns also includes a variety in sizes. You will find teen-age, junior, and misses' sizes represented in the four styles. The simple shoulder-tie dress is designed to fit all figures. It comes in small, medium, and large sizes. The two jumper dresses, numbers 6000 and 6035, are cotton-time favorites that will be equally becoming in a winter-weight fabric and worn with a pert, tailored blouse. Pattern number 6000 includes a balloon-sleeved blouse.

Back views and yardages of Advance Patterns on page 120

5539. A dress and bolero fashion for the misses' figure. Button-to-the-hem sundress has wide straps and fitted bodice and is V-shaped in back. Large hip pockets adorn the skirt. The trim bolero has rolled collar

5960. This jumper dress fits everyone! In small, medium, and large sizes, there are only seven pieces in the entire pattern. Fullness is released at the neck, and the skirt is nipped in smartly with a wide belt

6035. Junior-size choice is a sleeveless dress with button trim. Slender skirt fits smoothly over hips and has a huge pocket to balance the button interest. The pattern includes an alternate round-neckline style

6000. Teen-age sewers will give top rating to this "sew-easy" sundress. Full skirt starts at waistline and is a perfect petticoat style. Try it with a fluffy crinoline underskirt and you will head the fashion parade

Buy your hardware and housewares at a hardware store!

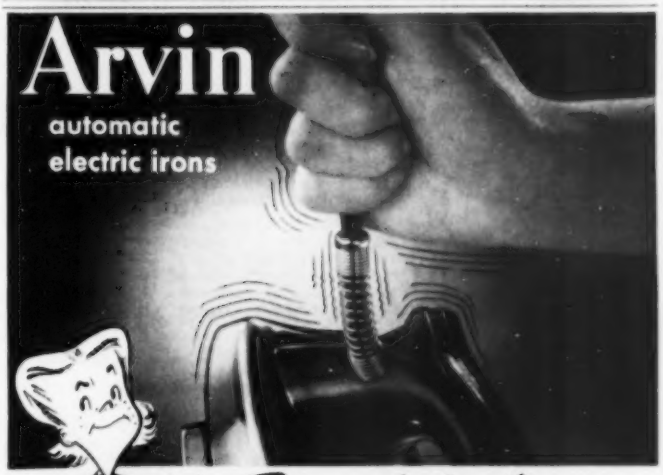
irha

INDEPENDENT RETAIL HARDWAREMEN OF AMERICA

HARDWARE STORE

Buy where you see this red, white and blue symbol of service . . .

NATIONAL AND AFFILIATED RETAIL HARDWARE ASSOCIATIONS



So well built...

THEY'RE GUARANTEED 5 FULL YEARS—Don't worry if *this* iron slips off your ironing table! It's an Arvin . . . with safety-locked, jerk-proof cord and unbreakable rubber plug. You *can't* break the connection! Yes, Arvin irons are so well built they're *guaranteed for 5 years!* Arvin Industries, Inc., Columbus, Indiana.

only $9.95 to $12.95

GET

GIANT Performance

WITH

D-X

MOTOR OIL

with EXTRINOL

IT'S TODAY'S BIGGEST MOTOR OIL VALUE

D-X with Extrinol is the heavy duty type motor oil that will help you get better performance with lower operating costs on trucks, cars and tractors. D-X cleans motors, protects bearings and fights sludge. It's tougher, safer and more economical. And it is guaranteed! Buy D-X Motor Oil with Extrinol and the complete line of D-X gasolines, oils, greases and lubricants from the friendly D-X Farm Serviceman who stops at your farm.

GET GIANT PERFORMANCE FROM YOUR CAR WITH D-X *LUBRICATING* GASOLINE

In town, look for the sign of the giant. It identifies the D-X dealer who has today's giant gasoline value for you — D-X Lubricating Gasoline. Try a tankful. It costs no more than ordinary gasoline.

FARM D-X SERVICE

MID-CONTINENT PETROLEUM CORPORATION

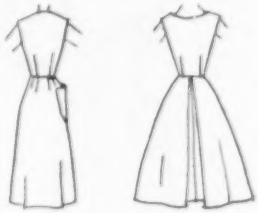
TULSA, OKLA.

Waterloo, Ia. Terre Haute, Ind. Omaha, Nebr. Chicago, Ill. Minneapolis, Minn.

Sundress season

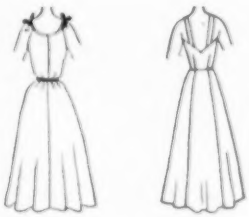
[*From page 119*]

6035. Sleeveless dress needs $3\frac{1}{8}$ yards of 35-inch material for size 11. Include $\frac{1}{2}$ yard of 25-inch sheer canvas for interfacing. Sizes 9 to 17. Cost is 35 cents.



6000. Teen-age sizes 10 to 16. Size 14 requires $4\frac{1}{2}$ yards of 35-inch material. Add $\frac{3}{8}$ yard for plaid or striped material in 35-inch width. Pattern price is 35 cents.

5960. Medium size (34-36 bust) requires $4\frac{3}{4}$ yards of 35-inch material. Add $\frac{1}{4}$ yard for matching if striped or plaid material is used. In small (30-32 bust), medium, and large (38-40 bust) sizes. Price is 25 cents.



5539. Size 16 dress requires $3\frac{3}{4}$ yards of 35-inch material. Contrasting bolero requires $1\frac{5}{8}$ yards of 35-inch material. For dress and bolero of one material in size 16, 5 yards of 35-inch material are needed. Sizes 14 to 20 and 40 to 44. Price of pattern is 35 cents.

These four Advance Patterns are available from local dealers or you may purchase them direct from Successful Farming by simply filling in the handy coupon below.

To: Successful Farming,
4706 Meredith Building,
Des Moines 3, Iowa.

We enclose cash or money order in the amount of $ ..... for the following Advance Patterns:

☐ **6035** Size .....
☐ **6000** Size .....
☐ **5960** Size .....
☐ **5539** Size .....

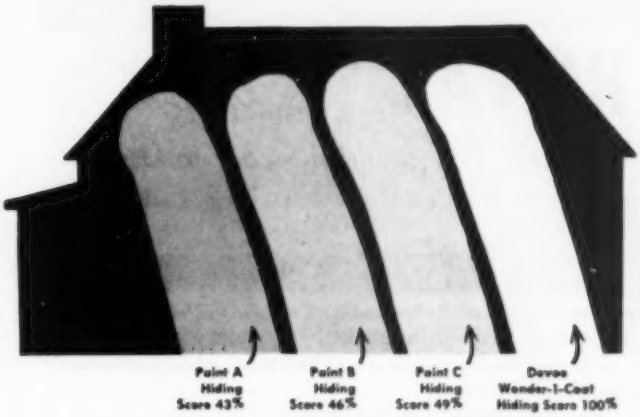
Name .....
Address .....
City ..... State .....

Most sensational house painting news...*since 1935!*

Revolutionary New Devoe Wonder-1-Coat House Paint

gives you 2-coat beauty and protection in just 1-coat ...slashes repainting costs nearly in half!

On the black silhouette at right, note four white strokes of paint. These strokes were made by leveling out four different brands of white house paint to the same thickness. Note the differences in hiding power. The stroke at the far right is new Devoe Wonder-1-Coat House Paint.



Above is a reproduction of an actual demonstration board which you can see at your Devoe dealer. The figures show the relative hiding power of four brands of white house paint. Note the superior hiding power of Devoe Wonder-1-Coat . . . it gives you two-coat beauty and protection in just one coat!

IN 1935, Devoe introduced a revolutionary new system for repainting houses . . . the first two-coat house paint in history.

Today Devoe introduces another great first to America—the most sensational house-paint news since 1935. Devoe WONDER-1-COAT House Paint!

Amazing new Devoe WONDER-1-COAT House Paint is something entirely *new. It introduces an altogether new concept in repainting your house.* Now—instead of 2 coats, you need only *one* coat. Now—instead of going through all the motions applying paint *twice* on your house, you need only apply it *once.* When your paint contractor does the painting, you save hundreds of dollars on labor costs alone. If *you* do the work, you get free to do other things *twice* as quickly.

If you want to see a demonstration of WONDER-1-COAT'S fantastic performance, visit your Devoe Dealer (listed in classified phone book). He'll be glad to demonstrate its amazing performance.

Painter Praises Devoe WONDER-1-COAT House Paint! In Atlanta, Ga.—J. T. Rogers says: *"Devoe Wonder-1-Coat House Paint gets me more jobs, saves money for customers!"*

Homeowner Mr. A. Seymoure, Marlboro, Mass., states: *"DEVOE WONDER-1-COAT saved me enough time and money to take an extra week of vacation."*

DEVOE PAINT

FOR BEST RESULTS USE A SUPERKLEEN BRUSH

Paint a room . . . use it the same day with sensational rubber base Devoe WONDER TONES! The only rubber base wall finish in both flat and semi-gloss. Dries in 20 minutes with no painty smell.

TO: Devoe & Raynolds Co., Inc., Dept. F-62
P. O. Box 1619, Grand Central Annex
New York 17, N. Y.

FREE: Please send me the 28-page booklet, "86 Color Schemes for White Houses," showing how I can save with Devoe WONDER-1-COAT House Paint.

Name_____
(please print)
Street_____
City_____ State_____

ONE YEAR'S IMMUNITY
from HOG CHOLERA!

HOG CHOLERA VACCINE**

(Modified Live Virus) Rabbit Origin — Vacuum-Dried

ROVAC* Lederle

Effective • Economical • Easy-to-Use

A single injection of ROVAC Hog Cholera Vaccine gives swine active immunity against hog cholera for at least 1 year. This completely new-type vaccine offers many advantages:

- It requires no anti-serum.
- Swine may be vaccinated after reaching 6 weeks of age, weaned or not. (Do not vaccinate at weaning time.)
- It can be used alone on normal swine which have not been exposed to hog cholera.
- It can be used simultaneously with anti-hog cholera serum on swine which may be exposed to hog cholera.
- It does not "seed" the premises and will not cause hog cholera in unvaccinated animals.
- No special feeding is required before or after vaccination.
- It is economical and easy to use.

In extensive laboratory investigations and field trials, *no evidence* was developed to suggest that ROVAC held any power to produce hog cholera or to revert to disease-producing forms that would "seed" soil. Through many months of testing and use under farm conditions, serious losses and reactions which could be attributed to the vaccine have been notably absent.

ROVAC is a scientifically proved product, backed by years of intensive research by Lederle scientists and skilled technicians. Like all Lederle veterinary vaccines and bacterins, ROVAC is produced with the same care and supervision that is given to Lederle biologicals for human use.

For best results ROVAC should be used by, or on the advice of, a veterinarian. Consult your veterinarian often for help in maintaining the best management and disease-control procedures.

*Reg. U. S. Pat. Off. **U. S. Pat. No. 2,518,978

Animal Industry Section

LEDERLE LABORATORIES DIVISION

30 Rockfeller Plaza AMERICAN Cyanamid COMPANY New York 20, N. Y.

Bulk feed handling

[*From page 34*]

depending on the area, kind of sacks used, and the distance hauled. The biggest saving is in the cost of the bag.

2. Handling is reduced at both the feed mill and on the farm. Savings in labor costs at the feed mill are passed along to the farmer. On the farm, feed is dumped directly into self-feeders, overhead bins, or other storage space.

3. Feed-handling time is cut from 30 to 50 percent. On the farm, no extra man is needed to move the feed from the truck to holding bin or self-feeder. Automatic unloaders do a quick, thorough job.

4. Handicapped and older persons can carry on a feeding operation. No scooping, no sacks to empty and return.

5. One man and a truck can deliver from 30 to 50 percent more bulk feed than sacked feed. This cuts down on delivery costs.

However, bulk feed delivery isn't without its drawbacks. From the feed mill's standpoint, new machinery, bins, scales, and conveyers are needed. Also, a delivery truck, with the necessary unloading equipment, is almost a must. These eat up some of the savings. Farms aren't always equipped with the proper storage bins. This may mean a remodeling job.

Other drawbacks are road and barnlot conditions. You'll need a road capable of holding up a heavy truck—a feedlot big enough and ground solid enough to handle delivery trucks. Small orders are out of the question. However, to get around this, many bulk trucks are equipped to throw on a few bags of sacked feed for small users.

The two features giving bulk feed most of its appeal are the savings in labor and cost to the user. According to a study made by the United States Department of Agriculture, the convenience and labor saved overshadow the saving in dollars and cents in the minds of most farmers. The study states:

"Feeders are practically unanimous in saying that laborsaving and convenience right on the farm are the determining factors for them. Large feeders find they can reduce their labor force. Smaller feeders can handle larger herds or flocks."

> **Do not use a hatchet to remove a fly from your friend's forehead.** —*Chinese proverb*

However, the lower cost of the feed cannot be overlooked as an important selling factor. The U.S.D.A. has this to say on feed costs: "Mixed feeds are customarily priced with bags included. The miller adds this item to his other costs in determining his prices for feed. Bags, therefore, become a cost to the farmer.

"Cash savings to farmers on bulk feed amounted, in general, to the net cost to them of the bags which would have been used if the feed had been packed in bags. Savings to the mills, other than cost of bags, appeared to be rather small. The actual bagging is not an expensive operation. Labor and equipment costs for weighing, sacking, and machine-sewing a ton of feed in 100-pound bags will usually average between 10 and 50 cents."

Part of the extra cost of sacked feed is

[*Turn to page 124*

16,500 DRY HOLES

Oilmen Work Against Big Odds to Find Record Amount of New Oil For You

The search for oil is a risky business. To meet the greatest need in history, U. S. oilmen last year expended over two billion dollars in drilling for new oil supplies.

Much of this huge sum was lost in 16,500 costly dry holes. But by drilling thousands of wells to expand known fields and by drilling exploratory wells in entirely new areas, a record amount of new oil was found to assure your future needs.

Finding oil is only part of what it takes to keep your family car rolling and to fill other record demands for fuels and lubricants. Year after year, U. S. oilmen plow back into their businesses over fifty cents out of every dollar earned.

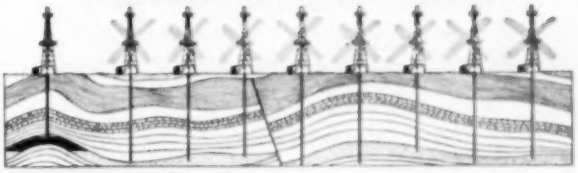
In 1951 this plowing back of earnings was biggest in history. It helped set new crude oil supply records. It also added new refinery capacity, miles of new pipelines—tankers, tank-cars, barges and tank-trucks, new research facilities, millions of gallons of additional storage space as well as thousands of new and improved service stations.

It is only by planning ahead, by taking risks and plowing back earnings, that America's thousands of privately-managed oil businesses are able to provide you with the finest oil products at the world's lowest prices.

Oil Industry Information Committee
AMERICAN PETROLEUM INSTITUTE
50 West 50th Street, New York 20, N.Y.

OIL WELL? MAYBE. No one *knows* the answer. The only sure way to find out is by drilling. If the well turns out to be a dry hole, the operator will have lost his investment. Even a well that *starts* to produce doesn't always pay out. In spite of risks involved, U. S. oilmen last year found greatest volume of oil in history.

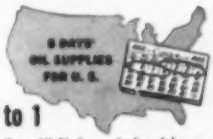
HERE ARE THE ODDS AGAINST FINDING OIL*



Odds are 8 to 1 against bringing in a producing well in an area where oil has never been found before. Of the 6,189 new field exploratory wells drilled last year, 5,505 were dry holes. The remaining 11,000 dry holes were drilled in or near known oil producing areas. ***Odds are even greater against finding a big producing area . . .***

43 to 1

Chances against bringing in an oil field yielding over one million barrels are 43-1. Recovering this million barrels takes many additional wells. Yet a million barrels is only enough oil to fill U. S. needs for 4 hours.



966 to 1

Odds against finding a field that will yield over 50 million barrels—enough to supply U. S. for 8 days—are a staggering 966 to 1.

*From "Exploratory Drilling in 1951" by Frederic H. Lahee, Bulletin of the American Association of Petroleum Geologists, Volume 36, to be released June, 1952.

MORE Tractor Hours for Less Money!

You will get more hours of tractor life and spend less money for repairs by using Sinclair Gasoline regularly. That's because Sinclair Gasoline contains RD-119,* the amazing chemical developed by Sinclair Research. This exclusive rust inhibitor coats the inside of the entire fuel system with a thin protective film which stops the formation of damaging rust and corrosion – protects fuel lines, fuel pump and carburetor.

Cut repair costs, increase the life of your tractor, truck and car. Get full power . . . plus anti-rust protection . . . at no extra cost. Phone or write your Sinclair Representative today. For premium performance, ask for Sinclair Ethyl.

SINCLAIR ANTI-RUST GASOLINE

Bulk feed handling

[*From page 122*]

made up if the sacks are returned. However, the farmer still doesn't get the full price, and many bags are damaged by mice and rats or by tearing, which makes them useless. Delivery charges eat up some of the saving in bulk delivery, but a similar charge is made on bagged goods.

Bulk feeds are mixed at the feed mill in about the same manner used for bagged feeds. The ingredients are tested and weighed to determine their protein, carbohydrate, and fat content—the same as with sacked feed.

Delivery trucks consist of a large steel or aluminum tank, usually divided into two to three compartments. The feed is loaded through openings in the top of the truck. The multiple compartments enable the truck to make feed deliveries to several farms per trip. Or, several kinds of feed can be delivered to the same farm. Most tanks hold from 6 to 7 tons of feed. With bulk feed, loading and unloading time is cut, enabling the delivery truck to make from one to two more deliveries per day than is possible with sacked feed. A 6-ton truck can be loaded in about 20 minutes.

Weights are obtained in several ways. The feed can be weighed through the automatic packing scales. However, since most feed mills still sack feed, this means interrupting the sacking operation. Probably the most popular method is over regular scales. The truck is weighed before and after loading the hopper with feed. If more than one batch of feed is delivered per trip, the truck is weighed before and after each batch is loaded. In most mills, an analysis tag is attached to the invoice and weight ticket which goes to the customer.

Methods of unloading bulk feed at the farm and types of farm storage vary with the individual farm. The type of livestock operation (dairy, poultry, broilers, hogs, or beef) and the building arrangement make a big difference. Many bulk-feed users just spout the feed right into self-feeders (see the photograph on page 35.) This can be done if the operation is large enough to take care of several tons of feed at a crack. In wet weather, portable self-feeders can be pulled from the pasture for filling. Steel tanks, standing in the open, are used in areas where the climate is mild. They are high enough to permit wagons to be filled through an opening in the bottom. In many cases, existing bins are used to store the feed. Second-story bins also are used by many farmers. Overhead bins give them a chance to use gravity for unloading, cutting down on labor. However, the opening should not be over 16 feet from the ground, as most delivery-truck spouts won't go much higher than that. From the farm-storage bin, the feed can be loaded into a feed cart or a wagon. Grain boxes, with automatic unloaders, help simplify moving the feed from storage to feeders.

It takes about 15 minutes to unload a 6-ton load of feed. No scooping or carrying of sacks is necessary—the automatic unloader on the truck does the work. However, storage facilities on the farm must be located and arranged so that the bulk truck can maneuver into an unloading position.

Bins should have a minimum of 2 tons

capacity. Most feed mills won't make deliveries under 2 tons. If a gravity bin is used, a sloping floor will be helpful in getting the feed out of the bin. Allow a 55-to-60-percent slope for dairy feeds and mashes and a 35-to-40-percent slope for grains and pellets.

Here is how Earl Dauberman, cattle feeder in Kane County, Illinois, handles bulk feed. Last year he bought around 30 tons of protein supplement at a saving from $12 to $15 per ton. He does his own hauling, bringing it out to the farm in 5-ton lots. "It's just like handling shelled corn," says Dauberman. Once on the farm, the supplement is elevated to an overhead holding bin. From here, gravity does the unloading.

The chute from the overhead bin is equipped for measuring the supplement out in 100-pound batches. Two slides in the chute do the trick. For filling, the upper slide is pulled out while the lower one is closed. When the chute is full (a glass front allows him to see), the upper slide is closed and the lower one pulled out. The space between the two slides holds just 100 pounds of feed. From the chute, the feed falls directly into a wagon.

> **The human race is divided into two classes: those who go ahead and do something, and those who sit and inquire, "Why wasn't it done some other way?"** —*Anonymous*

In Champaign County, Ohio, broiler raiser J. Frank Kendrick has all his feed mixed in a nearby elevator and delivered to his farm by a bulk truck. The feed is elevated to a second-story feed-storage bin over his broiler plant. The feed then drops through a chute into the hopper of his endless-chain feeder which runs the length of the house.

John Mumau, Black Hawk County, Iowa, started using bulk delivery about 6 months ago. He spouted 2 tons of 30-percent beef supplement directly into a wagon box. Then he backed the wagon into the feeding alley of the barn. From here, the feed is put directly into the mangers.

"More feed companies will come to bulk feed delivery," says Charles Gerken, Buchanan County, Iowa. "It's handy and cuts down on labor and feed costs. They're the big things." Savings range from $6 to $9 per ton. On top of that, each load of feed delivered in bulk saves from 2 to 3 hours of feeding time. The feed is dumped directly into the self-feeders (see picture, page 35). "It doesn't make any difference whether I'm home or not when the feed is delivered," says Gerken. "The deliveryman knows where to put it." Last year he fed 60 tons of custom-mixed commercial feed, all delivered in bulk.

The convenience to farmers and the savings in bag costs resulting from the bulk feed idea are enough to offset any disadvantages of the system. The necessary adjustments will have to be made—both in the feed industry and on the farm. Each farmer will have to work out his own individual problems to fit bulk feed into his feeding plan.

As the "bugs" are worked out, bulk feed handling is finding its place. In the end, both the feed industry and the feeder will benefit. END

SUPER
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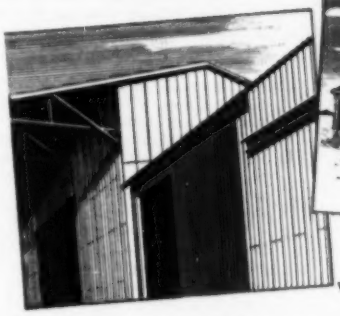
ROOFING NEWS

CHANNELDRAIN AS ROOFING AND SIDING STANDS "SEVERE TEST!"



Above: Just a few of the many buildings roofed and sided with Super-Channeldrain at Holland & McChesney's extensive Freehold, N. J., establishment.

10-year user reports "Very Satisfactory Service"

Holland & McChesney, dealers, have used Super-Channeldrain since 1942. Their foreman, Arthur Mancini, says: "Wheeling Channeldrain has given very satisfactory service on our buildings...a severe test." How well Super-Channeldrain has stood that "severe test" is proved by Mr. Mancini's continued use of it on building after building, as the firm expanded. There's good reason for that "very satisfactory service" built into Channeldrain—in fact, *three very* good reasons, as the diagrams at left show.

WHY WHEELING WARE WEARS BETTER TOO!

First: the *extra strength* of Wheeling's sturdy steel.

PAIL

Second: the *protection* of DURA-ZINC-ALLOY.

Third: *complete sealing* against leaks insured by *hand-dipping* of Wheeling *after it's made!*

ROUND TUB

Three reasons why it's *ware that wears and wears!*

SUPER-CHANNELDRAIN ...BETTER 3 WAYS!

1. Extra Lap for more thorough drainage.
2. Extra Strength of sturdy COP-R-LOY Steel.
3. Extra Rust Resistance from protective zinc coating.

When it Rains it Drains!

Wheeling

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Enjoy better farm living . . .
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KOSCH SIDE MOUNTED MOWER

You've always wanted a **Side Mounted Mower.** Now it's here. With a Kosch, you see where you're going, see where you're mowing. **Mount in a few minutes.** Never before has mowing been so fast and easy. Kosch Mower has standard cutter bar and pitman, easily maintained with **IH Parts.** Thousands satisfied users. Learn why KOSCH MOWER is Best. Available for **Farmall H, M, A, C, Super A and C, Reg. & F-20; John Deere A & B; Allis Chalmers WC & WD; Ford, Ford-Ferguson, Fergusons,** and **other** tractors. Get all the facts. Specify make and model. Write for FREE literature today.

KOSCH MFG. CO. Dept. S Columbus, Nebr.

Should you keep a bull?

[*From page 49*]

pastures, added needed fertilizer, and started feeding a better-balanced ration.

Since the time these management practices were put into effect, White hasn't had any trouble getting cows settled.

White said, "Like many other farmers, I blamed the trouble on the semen when my cows wouldn't settle. But now I know the trouble *can* be with the cows. Sixty percent of my cows settle on the first service now. One year I had only 3 call-backs on 20 cows."

White has only one objection to artificial breeding. He doesn't think he gets the uniformity in his heifers that he did when he had his own bull. This is one complaint voiced by a number of farmers. The reason is that all the cows in a herd may not receive semen from the same bull. Even with this drawback to the system, however, White doesn't plan ever to have a bull on his farm again.

> **Some people don't have much to say, but you have to listen a long time to find it out.** —*Anonymous*

"A small dairyman like me can't afford a really good bull. The bulls at the breeding farm are as good as those anywhere. To me, that's the biggest advantage to artificial breeding," he added.

One of the many grade dairy herds bred artificially in the Springfield area is the herd belonging to Raymon Potter and son Wayne, Pleasant Hope, Missouri. The Potters, like White, had quite a bit of trouble getting cows settled at first. They started out with 100 cows, but have since culled to about 60.

Potter said he wasn't too surprised when some of the cows wouldn't settle when bred artificially. They were the same cows that he'd had trouble with when he owned a bull.

About 40 of the present herd of 60 Jerseys and Guernseys are daughters of cows bred artificially. "There's no better way to improve a grade herd. We had some pretty good bulls on the farm, but not as good as those owned by the breeding farm. We couldn't afford to buy that kind," Potter said.

"I also think breeding cows artificially is a timesaver. You don't have to take care of a bull. It's cheaper, too, in the long run. Another thing I like about it is the fact that it makes for a healthier herd. You've got to keep a sharp eye on the cows if you want a good conception rate. At the same time you're watching for the cows to come into heat, you have a better chance to spot sick cows.

"When I started using artificial breeding in my herd, I knew very little about it. The boys at the breeding farm were new in the business, too. It's been an educational process on both sides. I think farmers and artificial-breeding associations still have much to learn about this business. But we've learned enough already to know we'll never go back to having our own bull," Potter concluded.

When the artificial-breeding farm first began operating, Neil McShane and son Wendell, Humansville, Missouri, immediately sold their bull. They wanted to have more than one breed of dairy cows in their grade herd, but didn't feel they could afford to own three bulls. They now have Jerseys, Guernseys, and Holsteins in their 50-cow herd.

"Our biggest surprise in this changeover came when we started comparing production records of artificially sired heifers and their mothers. We don't belong to a D.H.I.A. group, but we do our own record keeping. We found that production jumped at least 25 percent. That's upgrading a herd in a hurry!

"One of the things we had been told by some farmers was that with artificial breeding, more bull calves than heifers were dropped. For us it's been just the opposite. We've gotten more heifers. However, I don't think that holds true over the long run. It will average out over the years," McShane said.

This dairyman figures he can keep one extra cow by not having a bull on the farm. This extra cow, he said, more than pays the cost of artificially breeding the entire herd.

The cost of keeping a bull on the farm was mentioned by all these farmers. Just what does it cost? The Farm Management Department at Michigan State College kept cost figures for the years 1946, '47, and '48 on a bull when 14 or 15 cows were kept. The cost of keeping the bull amounted to $214 a year. The usual fees charged by well-organized artificial-breeding associations show that the breeding service for a similar number of cows would be about $70 a year.

Does artificial breeding pay off in the milk pail? Herd owners say it does. Reports from Michigan farmers on cows from artificial service now milking show that these cows are producing 50 pounds or more butterfat as 2-year-olds than did the dams. This increase was especially true with herds that averaged less than 350 pounds of butterfat yearly.

Even dairymen with outstanding herds of 350 to 400 pounds of butterfat production use artificial breeding. They say it's easier to maintain the high level of production because of the excellent quality of the sires available through artificial breeding.

> **The liar's punishment is not in the least that he is not believed, but that he cannot believe anyone else.**
> —*George Bernard Shaw*

At the present time, here's what artificial breeding can do for your herd:

It can provide the desired inheritance in the form of semen from proved bulls.

It will remove a dangerous animal from your farm and make space available for one or two more cows.

It will be as successful as natural service, provided you cooperate closely with the inseminator.

Here's what artificial breeding won't do for your herd:

It won't help cows with poor reproductive histories, disease, or physiological disturbances conceive any better than they would from natural service.

It won't settle heifers quite as readily as natural breeding with a young bull.

It won't improve the conception rate of cows unless they are reported in heat and bred during the heat period. **END**

One man's faith in Justice makes this date memorable . . .

April 9, 1952

Years ago a dream came true for Harry Ferguson. He obtained a patent on a device he had created—a hydraulic device that was to enable one man to do the work of many on the farms of America.

Other patents were issued to this man, patents on devices that ended back-breaking farm tasks—that saved time and money. So good were these devices that eventually, by a handshake agreement, a large motor car company manufactured a tractor equipped with them. It was marketed as the Ford Tractor with Ferguson System, integrating tractor and implement into one efficient machine.

As sometimes happens, this arrangement terminated and Harry Ferguson, Inc. made and marketed its own tractor using the Ferguson System. The Ford Tractor continued to be made and sold, embodying some of the Ferguson patents and inventions.

Thus Harry Ferguson found himself in competition with his own creations. He believed deeply in justice and in the rightness of his claim against the Ford Motor Company. It was this man's faith in these things that found justification on this date . . .

April 9, 1952

On this date the United States District Court for the Southern District of New York entered a final judgment, with the consent of all parties which ended four years of litigation between Harry Ferguson, Inc. and Ford Motor Company and others.

In this action, it was ordered and adjudged that:

1. The sum of $9,250,000 shall be paid to Harry Ferguson, Inc. as royalties on Patents Nos. 1,916,945; 2,118,180; 2,223,002 and 2,486,257.

2. Ford Motor Company shall not manufacture, after December 31, 1952, such tractors, and Dearborn Motors Corporation shall not sell any such tractors manufactured after December 31, 1952, as have
   (a) a pump having a valve on its suction side, as for example in the present Ford 8N tractor, arranged to be automatically controlled in accordance with the draft of an implement, or
   (b) a pump for a hydraulically operated draft control system for implement control and a power take-off shaft both driven by the lay shaft of the transmission, as for example in the present Ford 8N tractor, or
   (c) a coupling mechanism on the upper portion of the center housing, of the form employed in Ford 8N tractors manufactured prior to November 22, 1949; and Ford Motor Company and Dearborn Motors Corporation must affix a notice on any long coupling pins, manufactured by them, to the effect that the pin is sold only for replacement on 8N tractors made by Ford prior to November 22, 1949. This notice will continue to be affixed until October 25, 1966.

3. Ford Motor Company and Dearborn Motors Corporation shall have a period of time, expiring not later than December 31, 1952, in which to make these changes.

4. All other claims and counterclaims are dismissed and withdrawn on the merits.

A copy of the consent judgment is available to anyone interested in reading it. This settlement between Harry Ferguson, Inc. and the Ford Motor Company resolves the issues. The inventions mentioned above with which this action was concerned will be found only in the Ferguson Tractor and in the Ferguson System in the future.

Harry Ferguson, Inc.

Detroit 32, Michigan

How to make long-grass silage

By Walter Weiss

You can make grass silage with nothing more than a tractor, a mower, and a buck rake—and do it by *yourself*. A three-man crew—one mowing, one bucking, and one packing—can put up more silage faster, but such a crew isn't necessary. The grass silage I am talking about is *long-grass* silage.

Long silage may be the answer if the weather turns wet, if you're short on space in your upright silo, or if you can't round up the help or equipment to make hay or grass silage the usual ways.

Long-grass silage is made by simply putting freshly mowed legumes or legume-grass mixtures in a stack or trench and packing thoroughly. Preservatives are seldom used. The wilting time is short.

Usually, these stacks and trenches are located near the buildings. But some farmers are feeding cattle and sheep from them out in the fields. Where the haul is long, unloading wagons and trailers can replace the buck rake.

"How would you ever get that tangled mass out when you are ready to feed?" you may ask. Farmers who have made silage this way unanimously agree there is no problem getting it out—they have used manure loaders and pitched it by hand. They use rolling colters welded to pipes, hay knives, or chain saws to cut it. [*Turn to page 130*

1 Long grass can be bucked directly from swath after a very short wilting period. This buck rake has a load of around 1,500 pounds. A wagon or trailer is more efficient for hauls over 80 rods

2 Here the load is being placed on the stack from the side. Many drive onto stack to unload, which helps pack the silage. Drawing in sides slightly as the stack is built results in better packing and less spoilage

3 Small tractor constantly running over silage cuts spoilage whether it is stacked or put in a trench. Stacks are tapered for getting on or off either end. Pictures were taken at Richard Bothe farm, Fort Dodge, Iowa

"They never missed an issue!

"Just look at that mess!

"That's what a fire, a few axes and a couple tons of water can do to a place. But you've got to give Editor Grimes and the boys a lot of credit . . . *they didn't miss an edition,* fire or no fire.

"They're over in their new home now . . . *still* printing the news, telling the truth and fighting for the people's rights like they've been doing for the last forty-two years.

"Y'know, when I look at that boarded-up door, the broken windows and the 'closed' sign, it reminds me of how newspapers in some other countries get closed down . . . *for keeps* . . . by governments that hate the idea of free press . . . that can't take criticism . . . that don't believe in free speech.

"Well, that's what happens when government of, by and for the people becomes government of, by and for the *government!* It's 'Goodbye, Freedom' then . . . and with it go Free Worship, Free Elections, Free Enterprise . . . all those Freedoms that make you glad you're a citizen of *this* country instead of a socialistic or communistic one.

"Praise the Lord, we're still a free people over here. We can still choose our own churches, our own friends, our own jobs (like mine at Republic) and our own political parties. We can praise our government for wise decisions or criticize it for reckless spending of taxpayers' hard-earned dollars . . . without fear of secret police or concentration camps.

"But . . . let's not get careless about it. After all, the people in those dictator-plagued countries used to enjoy a lot of these Freedoms. Unfortunately, some of them got careless and handed over their rights, one by one, to governments which promised to ***'take care of them.'***

"Me . . . I'll take my Freedoms with no 'handout' strings attached. How about *you,* Friend?"

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Republic Building • Cleveland 1, Ohio

Republic BECAME strong in a strong and free America. Republic can REMAIN strong only in an America that remains strong and free . . . an America whose Agricultural Industry still leads the world in quantity *and* quality. *And through Agriculture, Republic serves America.* Republic has always been closely associated with farm needs and problems. Republic steel roofing, siding, fencing, barbed wire, fence post, nails, bale ties, culverts, pipe and many other products help protect millions of dollars invested in good farm property. Farmers can depend on Republic to help keep that investment sound.

* * *

For a full color reprint of this advertisement, write Dept. C, Republic Steel, Cleveland 1, Ohio

Fiery cracks between the toes? *Look tonight!*

ATHLETE'S FOOT calls for FAST ACTION

Examine the skin between your toes tonight. When open cracks appear it means Athlete's Foot can strike.

Absorbine Jr. helps inhibit growth of all the infecting fungi it can reach.

Athlete's Foot can be serious—but Absorbine Jr. takes care of your misery, *fast*

● When hot summertime footwork causes feet to perspire and tiny cracks to appear between the toes, Athlete's Foot fungi can get you in torment, even "lay you up."

So don't take chances—get quick relief with Absorbine Jr., the No. 1 Athlete's Foot preparation! Absorbine Jr. kills all the infecting Athlete's Foot fungi it can contact. It helps heal open cracks and prevent reinfection.

But be sure to get after Athlete's Foot before it becomes serious.

Get Absorbine Jr. today. At all drug counters. W. F. YOUNG, INC., Springfield, Mass.

Get after Athlete's Foot symptoms early! That's the time Absorbine Jr. helps clear them up fastest. Takes care of muscular aches and pains, minor sunburn, nonpoisonous insect bites, too.

Guaranteed by Good Housekeeping

SOOTHING REFRESHING **ABSORBINE JR.**

America's original relief for Athlete's Foot . . . and the *favorite* today!

6 GREAT SHAW DU ALL

Plow
Plant
Cultivate
Mow
Rake
Cut
Trees
Saw Wood

Walking or Riding Tractors
1½, 3, 5 H.P. walking models. 6, 8, 12 H.P. riding tractors. Get just the power you need in Shaw extra strength, superior traction machines. All wanted tools, attachments. Dependable for nearly 40 years. See a Shaw dealer. Write for FREE literature, low prices—today.

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Renew at least six weeks before your present subscription expires.

Here's an experienced "Farm Hand"... ready to do many farm jobs better at low cost!

All year 'round, keep plenty of tough, waterproof, windproof SISALKRAFT protective paper on hand for the many farm jobs it does so well!

put SISALKRAFT to work

Save time, money and valuable feed with SISALKRAFT. It makes dependable temporary silos for grass or corn silage. Trench silos, too, need SISALKRAFT protection.

Protect your HAY!

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Long-grass silage

[*From page 128*]

The other major silage worry—spoilage—can be a problem with stacked long-grass silage. But careful building and packing of stacks and use of trench silos will solve it.

Richard Bothe, Webster County, Iowa, put up 20 acres of second-cutting alfalfa as long-grass silage in 1951. Herbert Bothe, father of Richard, said this was the easiest haymaking they ever did. With this experience, the Bothes make the following suggestions to anyone wishing to try putting up long silage with a buck rake:

(1) Do not windrow—pick up directly from the mower swath. In case of short forage, it may be necessary to windrow. (2) Buck up the green material in the same direction you mow it. (3) Have the point ends of the buck-rake teeth lined up. Otherwise, some teeth higher or lower than others cause trouble in loading. (4) The back part of the buck rake must be 2 to 4 inches above ground when loading so the teeth points ride firmly on the ground. If teeth are flat on the ground, green hay gets under rather than on the teeth.

(5) Use 7-foot teeth rather than the usual 9-foot teeth. (6) For safety reasons, don't carry or travel with the bottom of load higher than the tractor radiator cap, and preferably lower. (7) Don't overload. The average load with stacker or buck rake should be from 1,200 to 1,500 pounds of green material. (8) Have smooth meadow fields. This means careful seedbed preparation at seeding time.

(9) Provide a smooth roadway from meadow field to pile or trench site. This saves travel time. (10) Don't wilt second cutting—pick up as close behind mower as possible. (11) The packing tractor should be running over the long grass constantly. (12) For safety reasons, the pile should be built so the packing tractor can travel over the entire pile and get off and on from either end.

As there was more spoilage than Bothe thought necessary, he plans to change his method of stacking this year. As the stack grows, he will pull the sides in slightly to improve his job of packing. Dirt will then be pushed up along the sides.

S. P. Hanson of Whitehall, Wisconsin, uses a hayrack bed on a two-wheeled trailer, and a heavy-duty hay loader. The hayrack bed is equipped with a conveyer, operated by a power take-off through a transmission, for loading and unloading.

Earl Schmidt of Dickinson County, Iowa, put up around 50 tons of long

Top view of the long-silage trench built in 1951 by S. P. Hanson, Whitehall, Wisconsin. A foot of sawdust covers the silage

brome-alfalfa silage in 1951. He had only the help of his 12-year-old son. Rather than digging a trench, Earl stacked his silage above ground. In fact, his first intention was to put up hay. But, after cutting, there were three days of rain—a sadly familiar story to a lot of us. So Earl built his long-silage stack.

Schmidt picked up and stacked the long grass with his manure loader. He put three hollow, iron-pipe teeth 4½ feet long on the bucket of his manure loader. If he were doing it over, he says, he would use solid rather than hollow iron teeth.

With a load in front, he could not drive onto the stack or pile. So he was forced to make a conventional stack of green forage by dumping each load on the edge of the stack, then forking it into place by hand. The only packing it got was by walking over it—and Schmidt was surprised at how easily the brome-alfalfa spread. He thinks more packing would have been desirable.

This year, Earl has rigged up a buck rake to go on the back of his jeep.

He plans to pile his long silage alongside his feedlot. From last year's experience, he feels that the length of the haul should not be longer than three-eighths of a mile. That means he will have to plan his rotations so as to have a field of alfalfa-brome near the farmstead every year, or else stack in the field.

Norman Nellen, young dairyman from Bongards, Minnesota, has had two years' experience with grass silage. In 1950 he hired a dragline to dig a trench silo 12 feet wide, 50 feet long, and approximately 12 feet deep at the deepest point. The cost was $44.

The trench, located near the barn, holds about 100 tons. Nellen filled it alone, in 40 hours, in 1951. He thinks, however, that a four-man long-grass-silage crew—two buckers, one mowing, and one man at the pile to level and pack—would be ideal.

Regarding wilting time, Nellen found that bucking operations worked best when done ahead of the time the forage became sticky. This may be from one to three hours after cutting, depending on weather conditions and the kind and stage of maturity of the forage.

Twice as big a load was hauled after a little experience in bucking up the long alfalfa-brome. Nellen tried three methods of picking up the long green forage: (1) out of the mower swath, (2) after it had been bunched with a swather, and (3) after it had been side-delivered. Picking it up out of the mower swath worked best. However, this may not be true of a shorter second cutting.

A steel-wheeled tractor was used for packing the long silage. Leveling off the long material, by hand, in the trench was easier than Nellen had expected. No preservative was used.

Bob McCarville, Moorland, Iowa, put up his first long-grass-silage stack in 1951. He plans to do it again this year, with a few changes. He intends to have a shallow trench dug and will pile the excavated earth against the side of the silage when it is completed.

Where possible, the stack should be protected from rain and melting snow. This can be done by covering with sawdust (6 to 12 inches), agricultural limestone (2 to 3 inches), or soil (2 to 3 inches). A roof can be made from old lumber or tin roofing. END

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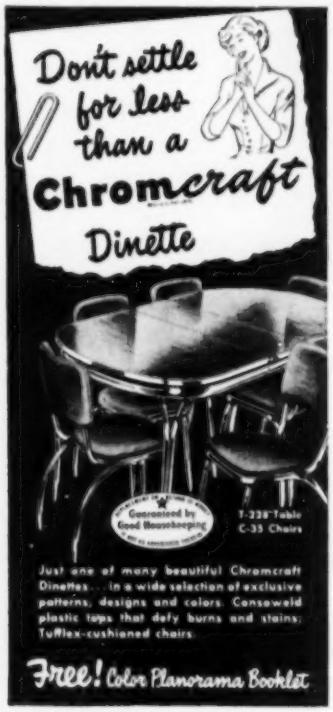

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Five common canning problems

and how to prevent them

Experts like Mrs. William Van Peursem, whose picture-pretty canned goods you can see on pages 50 and 51, know that prizewinning products result from sure and careful canning methods. The five common troubles that draw the fine line between winner and loser are minor problems you can easily correct. Here's how:

1 ***Product turns dark at the top of the jar of food.***

This is not a sign of spoilage. A fruit or vegetable will turn dark if you fail to drive out all the air from the top of the jar.

To overcome the difficulty, first select ripe foods for processing. Preheat the food for the length of time your recipe recommends. Don't cut it short. When you add the boiling liquid to your jar of food, be sure all the food is covered, leaving the right amount of head space.

With applesauce, peaches, pears, and sweet corn, you'll want to add ascorbic acid—150 milligrams to each pint, or 300 milligrams to each quart. The ascorbic acid itself won't affect the flavor, odor, or appearance of the food, except to help prevent this darkening.

You can buy the ascorbic acid in the drugstores and in some freezer locker plants. It's available in four different forms for canning: in fine grains, in tablets, in an ascorbic acid-citric acid mixture, or in an ascorbic acid-sugar mixture.

Work the air bubbles out of the jar with a knife blade, inserted along the inside of the jar. Process the food for the exact length of time and at the exact temperature recommended. Complete the seal, if necessary, immediately after processing.

2 ***Product changes color, fades, or darkens throughout the jar of food.***

Some color changes are natural, and you can't prevent them. Apples, peaches, pears, and pineapple often take on a pink or blue color. A fruit grown in dry, hot weather will often turn pink during processing. Or, hard water where you live may change the color of the food.

But some color changes *can* be avoided. Use fresh, young, evenly ripened products. The slogan, "two hours from garden to jar," is a good one to follow. Keep the food cool after gathering and before canning it. Don't expose fruit to the air after it has been peeled.

Preheat the food for the length of time your recipe recommends. Don't use copper or iron utensils, because they tend to affect the color of the foods. If you're careful not to process too long, your finished product should retain its fresh, clear color.

If you want a saw to work right it must be filed right. To do so the type and size of the file must be right. It must also be true-shaped, accurately cut, uniformly hardened—high in quality in *every* way. Poorly made, low-quality saw files are usually a waste of time and money. To be sure, get Nicholson or Black Diamond—the world's leading brands. Examples (cross-section shapes shown in black above):

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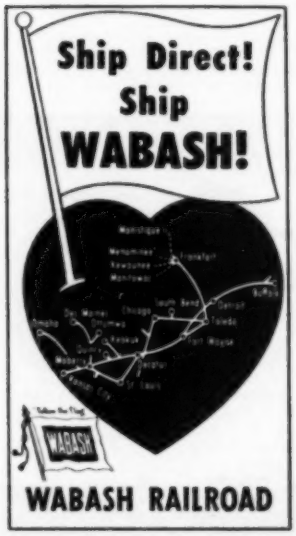

3 ***Liquid or syrup turns cloudy in the jar of food.***

Here again, hard water can cause cloudiness. But in some cases, the condition indicates spoilage, so examine the food for off-odors when you open the jar. If you suspect that the food is spoiled, destroy it.

When you're selecting the foods for canning, avoid bruised or overripe products. Handle all fruits and vegetables carefully.

Use cooking salt, rather than table salt, to avoid cloudiness. A high-quality sugar will also protect against it.

4 ***Liquid is lost from jars during processing.***

If you should lose a little liquid from your jars during processing, don't worry about the food's spoiling. The worst that can happen is that the food will dry out somewhat and undergo very slight changes in color and flavor.

To begin with, don't pack the food too tightly in the jars. After you have worked out the air with a table knife, add more liquid to fill in spaces between the layers of food, if necessary.

Be careful not to tip the jars in the kettle or the pressure cooker during processing. Be careful to maintain a constant temperature in the cooker all during the processing.

At the end of the processing time, remove the pressure cooker from the heat. Allow it to cool naturally, and open the petcock as soon as zero pressure is reached. Seal the jars immediately after removing them from the pressure cooker.

5 ***Food floats in the jars.***

Preheat the food, as recommended in your recipe, to drive out as much air from the cells of the food as possible. Fill your container with the food and shake it down in the jar, leaving the recommended amount of head space. Then, cover the food with liquid or syrup, avoiding too heavy a syrup. Don't overcook or overprocess. **END**

Out fishin'

Lyin' in a shady nook,
Beside a dancin', bubblin' brook,
Watchin' shadows round my hook,
  Out fishin'.

Listenin' to the rain crow's cry,
Watchin' clouds float in the sky,
Hearin' all the tall trees sigh,
  Out fishin'.

Seein' sun shine through the trees,
Listenin' to the hum of bees,
Doin' anything I please,
  Out fishin'.

Dreamin' dreams that can't come
  true,
Wakin', stretchin', yawnin', too,
Oh! This is what I love to do,
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—*James R. Walstrom*

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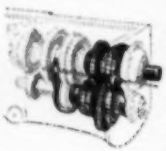

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Hay crushers

[*From page 47*]

claimed that young dairy heifers looked better in the spring when fed crushed hay through the winter. Furthermore, he quit feeding grain.

L. S. Nofziger, Archbold, Ohio, says his steers cleaned up crushed hay much better than uncrushed hay. This was noticed by other feeders, too.

Twelve of the 18 operators did a very limited amount of custom work with their crushers. The remaining six did none. One operator charged $2.50 per acre; the others charged from $3 to $3.50. Practically all those who did custom work do not wish to continue it. Hay crushing comes at a peak labor period on the Midwestern farm. Corn is ready to cultivate, beans must be planted, and hay must be harvested.

Paul Shaffer said he lost $2 to $3 at home for every dollar he took in by crushing hay away from home. One owner purchased a crusher with the idea of doing custom work to help pay for it, but he found that the demand for custom work was limited. In general, farmers are not yet acquainted with the performance and advantage of hay crushers, and therefore are not asking for them.

Because most crushers have been purchased since 1948, information on their useful life is incomplete. One machine, purchased new by a hay dealer in 1948, crushed 3,000 acres of hay, and was sold in 1950. According to the owner, the mower part of the crusher was completely worn out. He thought that if the mower had been repaired, the crusher portion of the machine would probably last another 1,000 acres.

Owners were asked to estimate the normal useful life of a crusher, in terms of acres. Estimates ranged from 2,000 to 4,000 acres. From this limited data, a crusher operated under average farm conditions in the Midwest would be expected to have a useful life of approximately 3,000 acres. Of course, the life of any machine depends much upon the operator and proper maintenance. Maintenance problems of hay crushers varied widely in this survey. However, there were some problems common to all operators of the same design of crusher.

The most serious maintenance problem on the offset-design crusher was that of decreasing bar lag. In early models, there is no adjustment for either the cutting bar or cutting-bar yoke in relation to the pitman. In later models, an adjustment of the cutting-bar yoke in relation to the pitman was incorporated in the mower. But no provision was made to adjust the cutting bar in relation to the yoke and pitman. Operators of all offset crushers with 500 acres of experience had this cutting-bar-lag problem. Cutting-bar lag varied from 2 to 6 inches. One operator heated and bent the large drag-bar on which the cutting-bar yoke is mounted to obtain the proper lead in the

> **The most uncomfortable truth in the long run is a safer companion than the pleasantest falsehood.**
> —*Theodore Roosevelt*

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cutting bar. Out-of-adjustment cutting-bar lead on the offset crusher creates unnecessary side draft and consumes extra power.

The main problem with the trailer-design crusher is the breaking of pickup teeth on the right end of the pickup. All operators of this design of crusher experienced this problem.

The total amount spent on repairs for the 18 crushers in this study was $1,130 for 10,510 acres of work. This made the average repair cost 10 cents per acre. One crusher was operated by hired help in fields with washouts. The hay was mostly an alfalfa-Ladino clover mixture

> **When you're in trouble, think of the teakettle; it still sings when in hot water up to its neck.** —*Anonymous*

with a high percentage of Ladino. Because of these conditions, the repair cost on this crusher was $1 per acre.

There are wide differences of opinion as to the effect of dew or rain on crushed hay, as compared to uncrushed. Most operators observed that crushed hay absorbs dew or rain quicker. But they say it also dries faster than uncrushed hay. Crushed hay can normally be baled earlier in the morning but not as late in the evening as uncrushed hay.

Many operators observed that crushed hay deteriorates faster when rained on several times, especially if the hay has dried before becoming wet. One operator noticed that crushed alfalfa stems seem to pop open when wet, making the hay look bad and lose color. Most crusher operators think that there is very little, if any, more leaching in crushed hay than in uncrushed.

Half of the operators stated that crushed hay made heavier bales, adding from 5 to 15 extra pounds per bale. In round bales, they couldn't see much difference in weight. Crushed hay seems to feed better in all types of bales. Two operators said that in overdry crushed hay, the bales were lighter than those of uncrushed hay.

The weight of wheat- and oats-straw bales is materially increased, according to the two operators who used crushers on straw. They said straw fed better into balers when crushed, absorbed more moisture in the barnyard, and rotted faster.

In general, operators feel that there should be a minimum average volume of 100 acres of crushing per year to justify the expense of a $2,000 crusher. And the hay should be fed by the operator. Fifty acres of alfalfa cut twice a year for hay would make this volume.

The initial cost of crushers is high, compared to that of other machinery. Their use may be limited, due to this fact. Users feel that the use of crushers will increase in the Midwest, especially on larger farm units with livestock programs. A well-engineered crusher which would sell for $1,000 or less could be used to advantage on many smaller farms having livestock programs and 50 acres of crushing per year. Implement manufacturers are now working on crusher designs in this price range. No doubt many farmers will find a place in their farm programs for such a crusher. **END**

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Livestock

Ladino gives pigs fast start

Ladino pasture gives pigs a good start by helping sows produce a good supply of milk for their litters, says G. E. Brinton, Fulton County, Illinois. Last year, he pastured 33 sows and 248 pigs on a 9-acre field of Ladino which had small amounts of alfalfa and timothy mixed in.

Brinton divides his litters into age groups and puts the pigs on pasture late in April. The pasture is fenced into three plots and pigs are fed a free-choice supplement made up of tankage, meat scraps, soybean meal, and linseed meal. Corn is scattered with a manure spreader.

After 45 top gilts are selected, Brinton markets the rest of the hogs. His records show that for each 100 pounds of gain he feeds about $1 worth of supplement and 4½ bushels of corn. Gilts saved are from heavy-milking sows which had litters of 8 or more pigs.

The Ladino pasture also gets credit for helping save corn. However, Brinton believes one of its chief advantages is helping the sows produce a good supply of milk.—*R. V. C., Illinois.*

Control for swine dysentery

Bacitracin, one of the newer drugs, may help control costly outbreaks of swine dysentery, according to a test at the University of Illinois college of veterinary medicine. Treatment of pigs with 100,000 units of bacitracin for 6 days resulted in a 96-percent recovery of the pigs. Reducing the amount to 50,000 units resulted in 80-percent recovery. This compared to an 83-percent recovery using sodium arsanilate. However, some of these pigs remained unthrifty even after signs of dysentery had disappeared.

Easy-to-fill feeder

Carl Goeken, Cass County, Iowa, built this self-feeder (pictured below) close to the granary for easy, quick filling. In fact, it's built right onto the granary. The 60-bushel feeder can be filled either from the inside or the outside. Farm manager Marvin Ridinger is shown holding open

Photograph: Schneider

the door through which the feeder is filled from the outside. From the inside, the feeder is filled through the studding.

The feeder has two compartments, one for shelled corn and one for a protein supplement. Granary is filled through the door at the right.

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"With my Gehl Forage Harvester, I used the first crop, harvested during unsettled weather, for silage, and the second crop for dry hay. I get a higher protein content despite weather conditions. My father also uses this method and our herds have averaged 455.1 to 496.4 pounds of butterfat the last two years. I believe that putting up chopped hay is the preferred way of getting the crop into storage.

"This past year, being exceptionally wet, many of my neighbors lost much of their hay. Using my Gehl Harvester, for the grass silage and chopped hay combination, I was able to put up three-fourths of my dry hay without being rained on. The combination gave us a high protein product despite weather conditions."

(*Signed*) Martin Lohmann

FREE PACKET Free packet contains new booklet: "Streamlined Methods of Harvesting Hay and Making Grass Silage," colorful Gehl Forage Harvester Catalog, **free plans** for building self-unloading wagon box, using Gehl metal parts kit. Address *Gehl Bros. Mfg. Co., Dept.* MF-5010, *West Bend, Wisconsin.*

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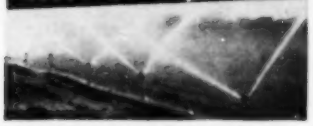
WATER any field



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OK CHAMPION
PORTABLE IRRIGATION

Veterinary

Use sprayers sensibly

Not long ago we talked to a dairyman who was worried about the health of his cows. They were on good pasture and seemed healthy. However, they weren't milking quite as well as they had in former years. Flies were ruled out as a factor, as each cow was sprayed individually when she entered the barn and again when she left.

As things turned out, this heavy spraying was to blame for the decrease in milk production. An oily preparation was used, and excessive application evidently sealed the pores and interfered with normal skin activities. A change in spraying methods was followed by an upswing in milk yield by the entire herd.

Better check your own spraying program this summer to make sure it won't cut your milk production.

What's the trouble here?

This cow had been milking heavily for about a month and seemed perfectly healthy. Then one evening she gave only a few squirts of milk, refused her grain, and was noticeably sick. The next day she spent a great deal of her time lying down. When made to stand up, she was unwilling to move about. Her movements were stiff and cautious. She lost weight rapidly, and habitually stood in a humped position with her elbows turned away from the body.

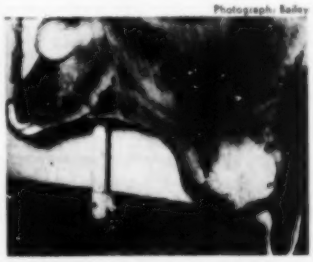
Within a week's time, the jugular veins became larger than normal along the sides of the neck, and there was considerable enlargement of the brisket region as shown in the photograph.

These symptoms indicate troubles such as kidney infection, indigestion, hardware trouble, acetonemia, arthritis, or abscesses inside the body. Can you name the trouble?

In this case it was hardware trouble caused by a sixpenny nail piercing the wall of the stomach, passing through the diaphragm, and finally penetrating the heart. Staples, wires, pieces of tin, and similar objects also are occasionally involved in such cases.

When diagnosis is early, the owner of an affected animal can do one of the following: (1) Sell it for beef; (2) have the hardware removed by means of an operation; (3) stand the animal for 6 weeks on an inclined platform that raises the front feet approximately 6 inches higher than the hind ones.

Photograph: Bailey



What caused enlargement of cow's brisket?

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Rush this to me WITHOUT ANY OBLIGATIONS ON MY PART, plus details of your Guaranteed Money-Back 30 Days Milking Trial, also Proof of Success.

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City State
Name of Machine Used
Number of Cows You Milk

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Registered and Non-Registered Wisconsin Holstein Calves—for higher production herds. Exceptional offering of choice Wisconsin Holstein Calves. Available in large quantities. Also some Guernsey and Brown Swiss. Vaccinated against shipping fever. Health sheet furnished. Well started—no milk required. Visitors welcome. Write or Telephone. J. M. McFarland & Sons, Watertown, Wisconsin.

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Hereford Hogs will convert grain to pork most economical of any breed. Attractive. Illustrated circular.
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Wisconsin Holstein, Guernsey and Brown Swiss Heifer Calves from High Production Herds. Free literature and prices. Dairyland Cattle Co., Delafield, Wisconsin.

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Genuine English Shepherd and Collie pups—guaranteed heeldrivers—(no fooling) year's trial—training instructions—$20.00; satisfied customers; males—females—spayed females—$15.00. (Distemper vaccinated).
Emil Runft, Reinbeck, Iowa.

Genuine Eng. Shepherd pups. $12. Guaranteed heelers, watchdogs, happy guarding the baby. Training instructions. Few older partly trained $25.
Creekside Kennels, Beardsley, Minn.

Setters and Pointers, Fox, Coon, and Rabbit Hounds, shipped for trial. Catalog 10 cents. Stanley Blake, Mgr. Blue Grass Farm Kennels, Berry, Ky.

Genuine English Shepherd pups—(Distemper Vaccinated). Guaranteed Heeldrivers. Year's trial. Training Instructions. Males, Females, Spayed Females.
Highview Farms, Cedar Falls, Iowa.

"PR" German Shepherd Police pups. Protect your property with a watch dog. Send 25c for pictures.
H. Schumacher, Ottertail, Minn.

Sportsmen: 200 Pointers, Setters, straight Cooners, Combination Hunters, Rabbit and Fox Hounds. Reasonable. List Free.
Ramsey Creek Kennels, Ramsey, Illinois.

English Shepherds—Border Collie Pups. All ages, both sexes, choice colors, faithful workers, satisfaction guaranteed.
Fairmount Farms, Cedar Falls, Iowa.

Canaries, Parakeets Wanted—Best prices. Write for shipping directions. American Bird Corp., 2610 W. 25th Pl., Chicago 8.

St. Bernard pups! Beauties. Reg'd. Details, prices, charming pictures free. Manitou Kennels, Watrous, Sask., Canada.

Want to buy good collie or shepherd puppies. Dept. G, Box 777, Des Moines, Iowa.

To sell more by mail . . . Go Classified, in the Farmer's Trading Center.

SALESMEN WANTED

I need 500 men to wear made-to-measure suits and earn up to $15.00 in a day showing friends and taking orders. Write for Free Outfit. Progress Tailoring Co., 500 S. Throop St., Dept. G-129, Chicago 7, Illinois.

Look Here! Wanted—Men to start in business on credit. Sell some 200 farm-home Products. Thousands our Dealers now make quick sales, big profits. For particulars write Rawleigh's, Dept. F-192-SHW, Freeport, Ill.

Your business will grow when you advertise in the Farmer's Trading Center.

BUSINESS OPPORTUNITIES

Florida Offers You many farm opportunities plus a happier living in its mild climate. If you are interested in farming in this new land of opportunity, write State of Florida, indicating type of farming you are interested in. State your specific requirements and request your copy of beautifully illustrated booklet: Farm Opportunities in Florida. Get complete information without cost or obligation. Write: State of Florida, 612191 Commission Building, Tallahassee, Florida.

Make Money Sharpening Saws and Lawnmowers. Start at home. Free book. Money Making Facts—tells how. Paul Foley Company, Columbia Heights, Minnesota.

Moneymaking Opportunities. Hundreds to choose from. Read World's Biggest Classified Medium. Free Copy. Popular Mechanics Classified, 207 East Ontario, Chicago 11.

Start Venetian Blind Laundry. Profitable lifetime business. New Machine. Free booklet.
O. A. Co., 101 S. 44th, Phila 4, Pa.

No. 1 livestock magazine in its field, Successful Farming leads all major farm magazines in editorial pages devoted to livestock.

FOR FARM WOMEN

Weavers—Write for low prices—carpet warp, rug filler, looms, parts, inexpensive beam counter. If you have a loom, give make and width please.
Or Rug Company, Dept. 6293, Lima, Ohio.

Leathercraft. Everything needed by beginners, advanced hobbyists and professional leatherworkers. Largest stock of supplies in U. S. Moderate-priced tooling leather, top quality calfskins, tools, supplies, kits. Send 10c for Big Catalog. J. C. Larson Co., 820 S. Tripp, Dept. 2162, Chicago 24.

Outdoor Toilets, Cesspools, Septic Tanks cleaned, deodorized with amazing new product. Just mix dry powder with water, pour into toilet. Safe, no poisons. Save digging, pumping costs. Postcard brings free details. Burson Laboratories, Dept. B-23, Chicago 22, Illinois.

Woman Needed—We offer wonderful opportunity for spare time money. Your home is your headquarters. No selling or canvassing. Write for free information. Wilson Ties, Stillwater 2A, Minnesota.

Look Full fashioned nylon Mill rejects, 6 pr. $1, Imperfects 3 pr. $1, Select Imperfects, 3 pr. $2. Satisfaction guaranteed. Premier Sales, Box 8177, Chattanooga, Tenn.

Good money in weaving. Weave rugs at home for neighbors on $20.50 Union Loom. 30,000 doing it. Booklet free.
Union Loome, 80 Post St., Bonneville, N. Y.

89 Full size Jig Saw patterns of beautiful shelves, ornaments, toys, novelties. Plus "How, Where to Sell". Only $1.00. Mastercraft 64A, 7041 Ofcott, Chicago 31, Ill.

700 New Buttons $1.00. All colors, designs, sizes. Dozens of "sets" for dresses, etc. Guaranteed. Send No Money! Grandma Goodwin, Dept. 1837C, Girard, Illinois.

Make Up To $45.-$55. Week as a Trained Practical Nurse! Learn quickly at home. Booklet free. Chicago School of Nursing, Dept. F-5, Chicago.

Money in New Greaseless Doughnuts. Start in kitchen. No smoke. Sell stores. Free recipes. Unit Ray Co., 2665 South 13th Ave., Minneapolis 7, Minnesota.

90 All new, full size lawn ornament and novelty patterns up to 20" high. Only $1.00. Mastercraft 62A, 7041 Ofcott, Chicago 31, Illinois.

Fine Combed Chambray and Gingham Sanforized. Beautiful patterns. Samples on request. Only 69c per yard. The Cotton Shop, Pageland, South Carolina.

Business firms—write Successful Farming for details about classified advertising.

FOR FARMERS

Outside Snow White Paint—$4.95 quality tested titanium, lead and oil. $2.25 gal. in 5-gal. cans. Money-back guarantee not to peel, rub, wash off or turn yellow. Excellent coverage for wood, brick, concrete or cinder block. Over million gallons sold. Print samples-50c. Snow White Paint Co., 2345 Parkwood, Toledo, Ohio. 1127 W. Division, Chicago, Ill.

Attention Cream Shippers! Ship us your cream. 57 years of honest, dependable service. Calva Creamery Company, Calva, Illinois, and Kansas City, Missouri. Gustave Peterson's Creamery, St. Paul, Minnesota.

More editorial material is devoted to Dairy articles in Successful Farming than in any other major farm magazine. Write for classified advertising details.

AGENTS WANTED

Free Plastic Apron to all who want to make money. We show you how. Sell wonderful line Plastics using our sensational Party Plan. Apron and money making details sent immediately. Send postcard today to U. & M Company, Dept. 40-F, 510 St. Charles, St. Louis, Mo.

New Plastic Mending Tape. Just press on! Repairs clothing instantly. Lightning seller. Samples for agents.
Kristee, 148, Akron, Ohio.

POULTRY — CHICKS — DUCKS — EQUIPMENT

Greensburg chicks for immediate shipment. U. S. Approved-Pullorum Passed. Order direct from this advertisement. AA grade, non-sexed. Barred White Rocks, Rhode Island Reds, New Hampshires, White Wyandottes $12.95 per 100. Pullets $16.95. Cockerels $12.95. Big English White Leghorns $12.95 per 100. Pullets $23.95. Cockerels $3.95. Write today for complete price list and free catalog. Greensburg Hatchery, Box 9-C, Greensburg, Indiana.

For quick delivery of U.S. Approved, Pullorum Passed chicks. New Hampshires, White Rocks, Rhode Island Reds, White Wyandottes, Rock-Red Crosses $12.95. Pullets $16.95. Cockerels $12.95—100. White Leghorns, English type $12.95. Pullets $23.95, Cockerels $3.95—100. Heavy mixed, no sex guarantee $9.95—100. Write for free catalog and complete price list. Jackson County Hatchery, Box 13-C, Seymour, Indiana.

Davis Baby Chicks for immediate delivery. Barred, White Rocks, Rhode Island Reds, New Hampshires, White Wyandottes, as hatched $12.95—100. Pullets $16.95—100. Cockerels $12.95—100. Big English White Leghorns $12.95. Pullets $23.95—Cockerels $3.95. Heavy Mixed $10.95. White Giants, Cornish Hampshire and White Hampshire Crosses for Broilers $13.95. Davis Poultry Farm, Box 18-C, Ramsey, Ind.

For quick shipment. AA grade New Hampshires, Barred, White, and Buff Rocks, Rhode Island Reds, Orpingtons, $12.95—Pullets $16.95—Cockerels $12.95—100. Big English White Leghorns $12.95—Pullets $23.95—Cockerels $3.95—100. Heavy mixed $10.95. Write for free catalog. We ship C.O.D. Carney Hatchery, Box 15-C, Shelbyville, Indiana.

Assorted Heavies, $6.80. Reds, Barred, White Rocks, Hampshires, Australorps, Wyandottes $7.80, pullets $12.95, White Leghorns, Austra-Whites, Minorcas, $8.80, pullets $14.95. Leftovers $4.85. Assorted $3.95. Odds $2.95 as available FOB. C.O.D. 100% alive, latest price list, catalog, free.
Bush Hatchery, Clinton, Missouri.

'Kirby Ducklings'—Giant White Pekin U. S. Pullorum Clean. Hatched from carefully selected breeding stock. Fast growth. 5½ to 6½ Pounds in 10 weeks. Great Profit makers. Free illustrated catalog. Kirby Hatcheries, Box 44, Urbana, Ohio.

Goslings—Standard Breeds. Low-cost Cotton seed Strawberry Breeders. Write today for Free Catalog and prices. Heart of Missouri Poultry Farm, Route 41D, Columbia, Missouri.

Idle Wild Farm, Pomfret Center, Connecticut. White African Guinea eggs, keets, started birds from mature breeding stock. Last year produced, sold 42,000 guineas. Literature, prices.

Mammoth White Pekin ducklings, 12—$3.95, 25—$7.75, 50—$14.50, 100—$28.00. Baby chicks. Mallards, Goslings. Free circular. Colonial Duck Hatchery, Box D, Zeeland, Mich.

Started Goose (Heavy range-size Africans, Toulouse, Embdens, Chinese) Goslings—eggs. Safe shipment anywhere! Magazines, bulletins, explain profitable production, marketing. Free.
Peyton Farm, R28, Duluth, Minnesota.

Raise pheasants on the $100 week plan. Little capital and space can make you independent. Free details. Great Central Game Management System, Columbus 8, Kansas.

Heim's Pullorum Clean Chicks. Thirty Years improvement. Leading breeds. Brown Leghorns hold Three World Records. Free Brooding Bulletins.
Illinois Hatchery, Metropolis, Illinois.

Salem Chicks for immediate delivery. New Hampshires, White Rocks, Barred Rocks, Rhode Island Reds, White Wyandottes $12.95—100. Pullets $16.95—Cockerels $12.95. Big English White Leghorns $12.95—100. Pullets $23.95—Cockerels $3.95. Silverlaced and Columbian Wyandottes, White Giants $13.95—100. Heavy mixed, no sex guarantee $9.95—100. Write for complete price list and free catalog. Salem Hatchery, Box 6, Salem, Indiana.

Dubois Chicks—bred to lay, priced to sell. For quick shipment C.O.D. New Hampshires, Barred, White Rocks, Rhode Island Reds, White Wyandottes $12.95—100. Pullets $16.95. Cockerels $12.95. Silverlaced Columbian Wyandottes, White Giants $13.95. Big English White Leghorns $12.95. Pullets $23.95. Cockerels $3.95. Heavy Mixed $10.95. Rush your order for immediate shipment. Dubois County Hatchery, Box 910-C, Huntingburg, Indiana.

Seymour for top Quality. New Hampshires, White Rocks, Barred Rocks, Rhode Island Reds, White Wyandottes $12.95—Pullets $16.95—Cockerels $12.95 per 100. Leghorns, White, $12.95. Pullets $23.95. Cockerels $3.95. Heavy Mixed $10.95—100. Write for complete list of all prices and Catalog. Immediate shipment C.O.D. Seymour Electric Hatchery, Box 44-C, Seymour, Indiana.

6 Cross Breeds—Cornish X Rocks, Cornish X Hampshires, Minnorcas X Leghorn, Wyandotte X Rocks, Hampshire X Rocks, Hampshire X Leghorn, not inbred hybrids but pure bred crosses for vitality, growth and egg production. 20 other breeds. 50,000 chicks daily hatching capacity. Pullorum Passed. U. S. Approved.
Hayes Bros. Hatchery, Decatur, Ill.

Mid-States 275-355 Egg Bloodlines U.S. approved pullorum passed BOP Foundation Breeding. Guaranteed Live Delivery. Write for 3 color catalog describing breeds, discounts, day old, started chicks. Unsexed $8.90 up, pullets $16.90 up.
Mid-States Hatchery, Adrian, Mo.

Pekin ducklings, extra large, superior quality. Proved money-makers for hundreds of customers. 10—$3.00, 25—$7.50, 50—$14.50, 100—$28.00. Prospects look bright for duck raisers this season. Central Farms Hatchery, Box 8-6, Zeeland, Michigan.

White Leghorns, Austra-Whites, White, Barred Rocks, Hampshires, Hamp-Whites, Wyandottes, Reds, $8.95, pullets, $12.95, bravies, $6.85, mixed $6.45, locker special, $3.95, 100% alive, F.O.B. as available. Hi-Grade Chicks, Deepwater, Mo.

Baby chicks each week. All leading varieties U.S. Approved Pullorum Passed. Pullets, cockerels, or straight-run. Get our low prices before you buy.
Stouffer's Hatchery, Lena, Illinois.

Clover Valley Chicks. U. S. Approved-Pullorum Passed. Thousands weekly. All leading breeds. Free Catalog. Clover Valley Hatcheries, Box 39, Ramsey, Indiana.

Purebred goslings from breeders of superior quality. Properly hatched, ship well, strong, sturdy, excellent livability. Reasonable.
James Hatchery, Davisburg 9, Michigan.

Goslings Purebred White, Brown Chinese, Embden Toulouse and Africans for market. Postpaid. Guarantee shipment. Schlitz Goose Hatchery, IB, Bancroft, Iowa.

Goslings—Thousands weekly. Toulouse, Embden, White Hybrids. Assorted. Low Prices. Free Circular. White Feather Hatchery, Box 60, Fairmount, Minnesota.

White Muscovy Ducklings most profitable duck to raise, live delivery guaranteed. Richard Zimmerman, R. D. 1, Box 100, York, Pa.

DAIRY GOATS

Profit and Health from dairy goats. Monthly magazine tells how. 12-month subscription $1. Dairy Goat Journal, Columbia, C25, Mo.

OLD GOLD — JEWELRY

Highest Cash Paid For Old, Broken Jewelry, Gold Teeth, Watches, Silverware, Diamonds, Spectacles. Free Information. Satisfaction Guaranteed. Rose Smelting Company, 29-D East Madison, Chicago.

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Did you know Successful Farming has a greater percentage of subscribers living on farms than any other major farm publication? To reach farm families, advertise on these pages.

SCHLICHTMAN'S EGG BRED NEW HAMPS
English Type WHITE LEGHORNS $11.90 per 100 Prepaid
Rocks, Reds, Wyandottes, New Hamps, Austra-Whites
Also Sexed and Started Chicks
FREE CATALOG explains 2-week replacement guarantee. U. S. Approved, U. S. Pullorum Clean.
R.O.P. FOUNDATION BREEDING
SCHLICHTMAN HATCHERY, Appleton City, Mo.

BUY SUCCESSFUL FARMING BOOKS

FREE COLONIAL CHICKS POULTRY BOOK
CHICKS ON CREDIT
For 22 years MORE people have bought Colonial Chicks than any other kind! Save up to ¼ on all leading breeds and crosses. Rich in 300 egg blood. Day-old or started. Credit plan allows 4 months to pay! 4-COLOR CATALOG FREE. Write nearest address.
COLONIAL POULTRY FARMS
Pleasant Hill, Mo.; Lamar, Colo.; Faribault, Minn.; Lexington, Nebr.; Sweetwater, Tex.

KEEP YOUR FIELD-TILE Open
New, Inexpensive
FARM-ROD
Cleans Field Tile Of Roots, Mud and Other Debris
Operated by Power Take-Off or Road Crank
NO UNNECESSARY DIGGING ELIMINATED FLOODED FIELDS
Cleans tile 3" or larger in diameter. Comes in handy, easy to use. 25-foot sections which will clean from 5 ft. up to several hundred feet from one opening. Don't wait. Do it now. Write for FREE folder and full particulars.
ROTO-ROOTER CORP.
DEPT. G-13, 301 University Avenue, DES MOINES, IOWA

LARGE WHITE LEGHORNS Pullets 13.90 per 100 Non-Sexed 8.90 per 100
Also A-Whites, N. Hamps, W. Rks
U. S. Approved and Passed
Special Low Prices on Assorted
DAY OLD CHICKS PREPAID
FREE CATALOG
Strtd. Pullets 29.90 per 100 Cockerels 3.90 per 100
ORTNER FARMS BOX 416 CLINTON, MO.

CASH IN ON World-Wide Demand for POLLED SHORTHORNS
(NATURALLY HORNLESS)
Outstanding performance characteristics account for 170% increase in registrations since 1940. Faster gains . . . greater size. Quiet, easier feeding dispositions. Generous Milk production, PLUS natural hornless feature that minimizes shipping injury—assures higher grading. Write for literature—sources of supply.
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AMERICAN SHORTHORN BREEDERS' ASSOCIATION Dept. PSF, Stockyards, Chicago 9, Ill.

All around the farm

A page written by our readers

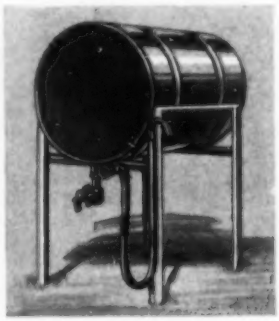
The distance between our barn and house is so great that I installed a simple telephone between the two buildings. The device proved to be so useful that I now have a unit in each of the main buildings on the farm. To get the utmost efficiency from this telephone system, I have worked out a code. Each member of the family has his own special ring so that he knows when he is being called. Very seldom does a message fail to get through to the proper person within a matter of seconds.—*R. B. W., Wisconsin.*

Instead of using high posts with a cross wire above, where our electric fence crosses a lane or gate, we connect the electric fence to a plastic-covered, insulated wire buried underground. This saves time and expense, and does away with the danger of overhead wires' interfering with loads of hay.—*J. W. E., Missouri.*

To bring sacks of seed and feed from the top floor of the granary to the bottom floor, I find it helpful to have a wide, smooth board on hinges running

parallel to the stairway. This "slide" is lowered for use. When not in use, it is raised upright (see illustration) so that it is out of the way and at the same time serves as a banister. When the slide is used, it rests on stairway, which adds extra support.—*L. R., Kentucky.*

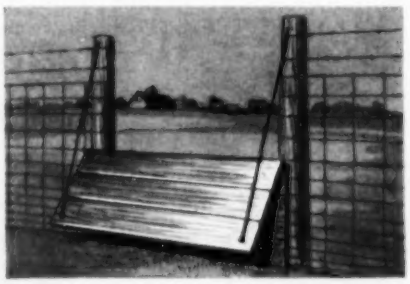
If you have had trouble with grass silage not rolling out of a dump truck, try sprinkling a few shovels of ground ear corn over the truck bed before loading in the field. It works like flour in a pan of dough.—*J. L. A., Iowa.*



I have found the device illustrated above very helpful in collecting dirt, rust, or water that collects in the gas barrel. I used 1" pipe, 6" in length. This pipe extends straight down from the barrel and has a faucet on the end. This gives the dirt and water more chance to settle in the faucet. The hose and its faucet are connected on the side of this 6" pipe. I drain the pipe at regular intervals.—*C. N. T., Kansas.*

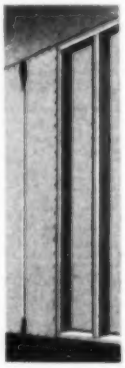
Because of hard rains, some types of soil become packed over small plants and seeds. To break up this crusted surface, I made a spike roller out of a length of cedar post about 16" long and 8" or 10" in diameter. I drove several rows of spikes into the post, staggering them so as to form a good mulcher. I then cut the heads from the spikes and sharpened them. The handle from a discarded lawn mower was fastened to the ends of the post section with lag screws. It makes a handy tool for the home gardener.—*N. D. S., Michigan.*

To permit beef cattle, but not hogs, to pass through the fence into the pasture, the idea illustrated has worked very well. When we want to keep the cattle on one side of the fence, the shelflike gate is pulled up in line with the fence. To permit cattle to pass through and keep hogs fenced in, the homemade gate is pulled into horizontal position, as a shelf.—*R. B., South Dakota.*



To provide a cooler for fattening pigs in very hot weather, I have fastened a revolving lawn sprinkler to a post in the center of a platform or floor area where pigs lie. With water supplied by a hose, a gentle spray of water provides the pigs with a cooled area. The platform should be either under natural shade or shaded with a light roof or awning.—*R. J. S., Illinois.*

When nailing any kind of large sheet material to studding, it's difficult to locate the stud. To make it easy, I start a nail into the bottom and top of the stud. I attach a cord to the nails, as illustrated. The cord is directly in line with the stud and makes nailing easy. A washer at one end of the cord and a washer and rubber band at the other make moving the cord easy.—*W. M., Wisconsin.*



When I change to a new oil filter on my tractor, I always scratch the installation date in the paint on the filter. When checking oil, I can check on the filter at a glance.—*D. P., Ohio.*

When our tractor radiator becomes clogged with dust and leaves, causing the tractor to overheat, we use a bucket force pump to clean it. Under the high pressure, the water forces out dust and trash very quickly.—*K. E., Nebraska.*

Isn't it time to paint your house?

WITH THIS

Take a good look at your house! Doesn't it really need paint? Doesn't it deserve the best paint? Don't gamble with ordinary paint when the best costs so little. Enough SWP House Paint for the average six-room home costs less than $45.

SWP has been the standard of quality in house paint for 70 years. This is the paint that is Weather*rated* to stand up against everything the weather can think of . . . to make your house look better *longer*. Insist on SWP for the most paint value.

Ask your Sherwin-Williams dealer to show you how SWP House Paint is Weather*rated* to clean itself and wear longer.

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That means SWP is tested rigorously for its ability to resist chalking, checking, cracking, fading, dirt collection.

Go outside and look at your house...

isn't it time for SWP?

For Decorating Ideas, Inside and Out, Borrow the Style Guide . . . FREE. Let your Sherwin-Williams dealer show you or lend you the big Paint and Color Style Guide. Scores of large color photographs of beautiful rooms and homes. Hundreds of authentic color styling suggestions.

If you wish, we will gladly recommend a reliable painting contractor.

IT PAYS TO SEE THE DEALER WHO SELLS SHERWIN-WILLIAMS PAINTS

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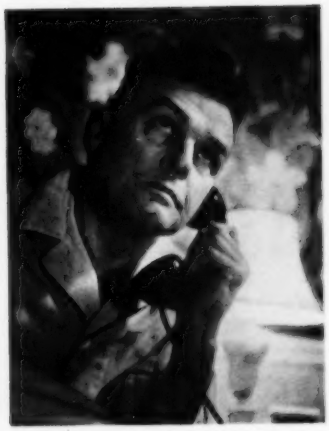
SHERWIN-WILLIAMS AND ITS ALLIED COMPANIES LEAD THE WORLD IN PAINT RESEARCH

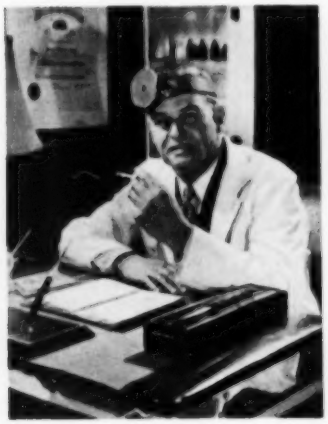
What cigarette do you smoke, Doctor?

If you were to follow a doctor on his rounds, you'd have a busy time keeping up with him!



He's accustomed to being called out in the middle of the night. His days are often 24 hours long!

So, time out for doctors often means just long enough to enjoy a cigarette! And doctors, too, are particular about the brand they choose!



In a nationwide survey, 113,597 doctors were asked, "What cigarette do you smoke, Doctor?" The brand named most was Camel!

R. J. Reynolds Tob. Co. Winston-Salem, N. C.

Repeated Nationwide Surveys Show:

More Doctors Smoke Camels

than any other cigarette!

"WHAT cigarette do you smoke?" 113,597 doctors were asked that question a few years ago. The brand named most was Camel! Since then, repeated cross-sectional surveys have been made and *every time* Camel has been first choice!

Smoke the cigarette so many doctors enjoy! Smoke only Camels for 30 days and see how much you enjoy Camel's rich flavor . . . see how well Camels agree with your throat, week after week!

START YOUR OWN 30-DAY TEST TODAY!